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(FILE 'HOME' ENTERED AT 14:45:24 ON 13 MAR 2003)
SET COST OFF

FILE 'HCAPLUS' ENTERED AT 14:45:35 ON 13 MAR 2003

E GB99-2592/AP, PRN
L1 1 S E4
E WO2000-GB345/AP, PRN
L2 1 S E3, E4
E WO200046184/PN
L3 1 S E3
L4 1 S L1-L3
E CHARLES, M
E CHARLES M/AU
L5 59 S E3, E9, E29
E FRANKE W/AU
L6 264 S E3-E11, E25, E26
E GREEN D/AU
L7 349 S E3, E8-E10
E GREEN DAVE/AU
L8 254 S E4, E16-E19
E HOUGH T/AU
L9 23 S E3, E4, E11, E13, E14
E MITCHELL D/AU
L10 182 S E3, E19-E21
L11 7 S E30-E32
E SIMPSON D/AU
L12 124 S E3, E14
E SIMPSON DON/AU
L13 13 S E4, E8, E9
E ATHERALL J/AU
L14 3 S E4, E5
E AVEBTUS.OAMCS
E AVENTIS/PA, CS
L15 1597 S AVENTIS?/PA, CS
L16 1 S L4 AND L5-L15
SEL RN

Jan Delaval
Reference Librarian
Biotechnology & Chemical Library
CM1 iE07 - 703-308-4498
jan.delaval@uspto.gov

FILE 'REGISTRY' ENTERED AT 14:50:24 ON 13 MAR 2003

L17 448 S E1-E448
L18 106 S L17 NOT METHANIMIDAMIDE
L19 STR
L20 SCR 1839
L21 50 S L19 AND L20
L22 30727 S L19 AND L20 FUL
SAV TEMP L22 QAZI890/A
L23 STR L19
L24 383 S L17 AND L22
L25 65 S L17 NOT L24
L26 48 S L25 AND NR>=2
L27 23 S L26 NOT METHANIMIDAMIDE
L28 3 S L27 AND (C22H30N2O OR C21H28N2O OR C20H22N4OS)
L29 25 S L26 NOT L27
L30 411 S L24, L28, L29
L31 37 S L17 NOT L30
SAV TEMP L30 QAZI890A/A

FILE 'HCAPLUS' ENTERED AT 15:12:16 ON 13 MAR 2003

L32 1 S L30

FILE 'USPATFULL, USPAT2' ENTERED AT 15:12:35 ON 13 MAR 2003

L33 0 S L30

FILE 'REGISTRY' ENTERED AT 15:12:44 ON 13 MAR 2003

L34 30344 S L22 NOT L17
L35 STR L23
L36 50 S L35 SAM SUB=L34

FILE 'HCAPLUS' ENTERED AT 15:16:35 ON 13 MAR 2003

L37 2642 S L34
L38 2419 S L37 AND (PD<=20000204 OR PRD<=20000204 OR AD<=20000204)
L39 374 S L37 (L) AGR/RL AND L38
L40 1076 S L37 AND AGRO?/SC,SX AND L38
E FUNGICIDE/CT
L41 194 S E17 AND L38
E E5+ALL
L42 130 S E8+NT AND L38
L43 3749 S (ERYSIPH? OR "E") ()GRAMIN? OR TRITICI?
E ERYSIPHE/CT
L44 1059 S E25-E32
E E25+ALL
L45 1059 S E6+NT
E E4+ALL
L46 2689 S E4+NT
L47 23 S L38 AND L43-L46
L48 23 S L39,L40 AND L47
L49 23 S L40 AND L47
L50 23 S L48,L49
L51 13 S L50 NOT MIX?
L52 10 S L50 NOT L51
L53 5 S L52 NOT SYNERG?
L54 13 S L51 NOT SYNERG?
L55 18 S L53,L54
L56 868 S L38 AND P/DT
L57 502 S L56 AND L39-L46
L58 278 S L57 NOT (SYNERG? OR MIX?)
L59 272 S L58 NOT GENET?/SC,SX
L60 140 S L59 AND (US/PC OR US/PRC OR US/AC)
L61 130 S L60 AND US/PC
L62 25 S L60 AND L41,L42
L63 23 S L62 AND 5/SC,SX
L64 41 S L55,L63 AND L37-L63
L65 28 S L64 AND P/DT
L66 13 S L64 NOT L65
L67 40 S BENZEN?/SC,SX AND L56
L68 15 S L67 AND L39-L46
L69 1076 S L38 AND 5/SC,SX
L70 205 S L39,L40,L69 AND L41-L46
L71 131 S L70 NOT (SYNERG? OR MIX?)
L72 131 S L71 NOT GENET?/SC,SX
L73 49 S L72 AND P/DT
SEL HIT RN

FILE 'REGISTRY' ENTERED AT 15:30:19 ON 13 MAR 2003

L74 723 S E1-E723
L75 4278 S L35 FUL SUB=L34
SAV L75 QAZI890B/A
L76 0 S L74 AND L75

FILE 'HCAPLUS' ENTERED AT 15:33:37 ON 13 MAR 2003

L77 200 S L75
L78 169 S L77 AND (PD<=20000204 OR AD<=20000204 OR AD<=20000204)
L79 50 S L78 AND AGRO?/SC,SX
L80 43 S L75 (L) AGR/RL
L81 41 S L78 AND L80

L82 0 S L78 AND L43-L46
L83 1 S L78 AND ?FUNG?
L84 43 S L80,L81
L85 42 S L84 NOT (PHARMACOL? OR PHARMACEUT?)/SC,SX
SEL HIT RN
DEL SEL
SEL HIT RN

FILE 'REGISTRY' ENTERED AT 15:36:12 ON 13 MAR 2003
L86 605 S E1-E605

=> fil reg
FILE 'REGISTRY' ENTERED AT 15:38:13 ON 13 MAR 2003
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STRUCTURE FILE UPDATES: 12 MAR 2003 HIGHEST RN 498527-50-7
DICTIONARY FILE UPDATES: 12 MAR 2003 HIGHEST RN 498527-50-7

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

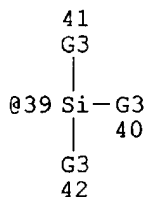
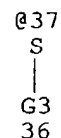
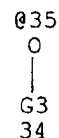
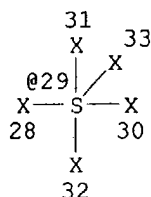
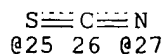
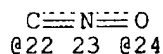
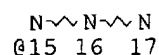
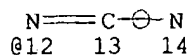
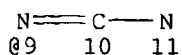
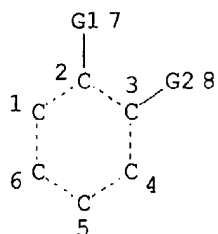
Experimental and calculated property data are now available. See HELP
PROPERTIES for more information. See STNote 27, Searching Properties
in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

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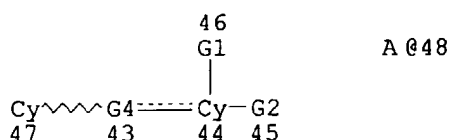
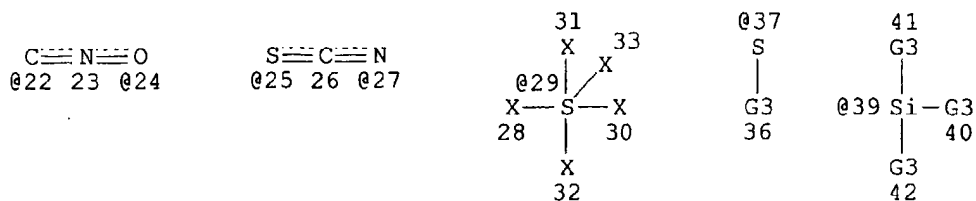
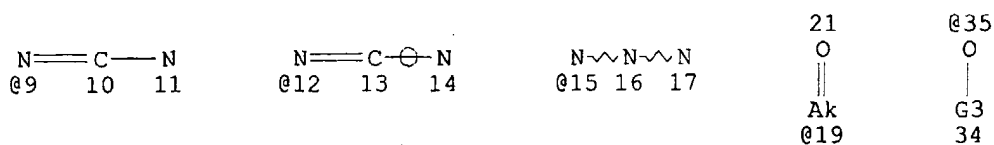
L19



VAR G1=9/12
VAR G2=AK/CY/OH/SH/15/NO2/X/CN/19/NH2/N/22/25/24/27/29/35/37/39
VAR G3=AK/CY
NODE ATTRIBUTES:
NSPEC IS RC AT 11
NSPEC IS RC AT 14
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 39

STEREO ATTRIBUTES: NONE
L20 SCR 1839
L22 30727 SEA FILE=REGISTRY SSS FUL L19 AND L20
L34 30344 SEA FILE=REGISTRY ABE=ON PLU=ON L22 NOT L17
L35 STR



VAR G1=9/12
 VAR G2=AK/CY/OH/SH/15/NO2/X/CN/19/NH2/N/22/25/24/27/29/35/37/39
 VAR G3=AK/CY
 REP G4=(0-20) 48
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 NSPEC IS RC AT 11
 NSPEC IS RC AT 14
 NSPEC IS RC AT 48
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 37

STEREO ATTRIBUTES: NONE
 L75 4278 SEA FILE=REGISTRY SUB=L34 SSS FUL L35

100.0% PROCESSED 30344 ITERATIONS
 SEARCH TIME: 00.00.07

4278 ANSWERS

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FILE COVERS 1907 - 13 Mar 2003 VOL 138 ISS 11
FILE LAST UPDATED: 12 Mar 2003 (20030312/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 132 and 11-116

L87 1 L32 AND (L1 OR L2 OR L3 OR L4 OR L5 OR L6 OR L7 OR L8 OR L9 OR L10 OR L11 OR L12 OR L13 OR L14 OR L15 OR L16)

=> d all fhitstr

L87 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2003 ACS

AN 2000:553541 HCAPLUS

DN 133:163952

TI Preparation of N2-phenylamidines as fungicides

IN Charles, Mark David; Franke, Wilfried; Green, David Eric; Hough, Thomas Lawley; Mitchell, Dale Robert; Simpson, Donald James; Atherall, John Frederick

PA Hoechst Schering Agrevo G.m.b.H., Germany

SO PCT Int. Appl., 76 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C07C233-37

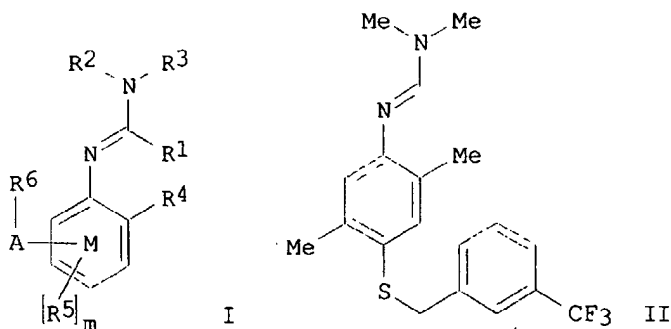
ICS C07D333-58; C07D285-00; C07D273-00; C07C251-04; A01N037-52; A01N043-82

CC 25-19 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)

Section cross-reference(s): 5

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|--------------|
| PI | WO 2000046184 | A1 | 20000810 | WO 2000-GB345 | 20000204 <-- |
| | W: AU, BR, CA, CN, CZ, HU, IL, IN, JP, KR, MX, RU, TR, UA, US, ZA | | | | |
| | RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE | | | | |
| | CA 2360943 | AA | 20000810 | CA 2000-2360943 | 20000204 <-- |
| | EP 1150944 | A1 | 20011107 | EP 2000-901791 | 20000204 <-- |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| | BR 2000009314 | A | 20020213 | BR 2000-9314 | 20000204 <-- |
| | JP 2002536354 | T2 | 20021029 | JP 2000-597256 | 20000204 <-- |
| PRAI | GB 1999-2592 | A | 19990206 | <-- | |
| | WO 2000-GB345 | W | 20000204 | <-- | |
| OS | MARPAT 133:163952 | | | | |
| GI | | | | | |



AB The title compds. [I; R1 = alkyl, alkenyl, alkynyl, etc.; R2, R3 = R1, CN, acyl, etc.; R2 and R3, or R2 and R1, together with their interconnecting atoms may form (un)substituted ring; R4 = alkyl, alkenyl, alkynyl, etc.; m = 0-3; when present R5 = R4; R6 = (un)substituted carbo- or heterocyclyl; A = a direct bond, O, C.tplbond.C, etc.; AR6 and R5 together with benzene ring M form an (un)substituted fused ring system], useful as fungicides, were prepd. E.g., a 3-step prepn. of the formamidine II which showed moderate to total control against Erysiphe graminis f. sp. Tritici at 500 ppm (w/v) or less, was given.

ST phenylamidine prepn fungicide agrochem

IT Fungicides
(agrochem.; prepn. of N2-phenylamidines as fungicides)

IT 287937-99-9P 287938-41-4P
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(prepn. of N2-phenylamidines as fungicides)

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RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of N2-phenylamidines as fungicides)

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RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (prepn. of N2-phenylamidines as fungicides)

IT 85-44-9, 1,3-Isobenzofurandione 98-17-9, 3-Trifluoromethylphenol
 122-01-0, 4-Chlorobenzoyl chloride 403-43-0, 4-Fluorobenzoyl chloride
 617-84-5, N,N-Diethylformamide 624-78-2, Methylethylamine 3096-71-7,
 4-Amino-2,5-dimethylphenol 3282-30-2, Pivaloyl chloride 4637-24-5
 6393-01-7 25697-55-6 34633-69-7 72198-83-5 96784-54-2,
 3-Methyl-4-nitrobenzonitrile 98054-21-8 287942-23-8 287942-24-9
 287942-25-0 287942-26-1 287942-27-2 287942-29-4 287942-30-7
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RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. of N2-phenylamidines as fungicides)
 IT 287942-11-4P 287942-13-6P 287942-14-7P 287942-16-9P 287942-18-1P
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RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of N2-phenylamidines as fungicides)
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RL: SPN (Synthetic preparation); PREP (Preparation)

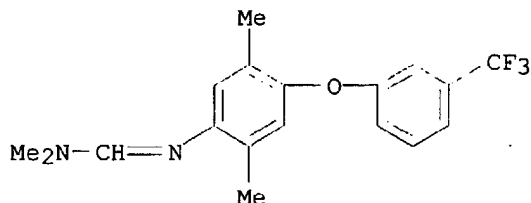
(prepn. of N2-phenylamidines as fungicides)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Bayer Ag; WO 9522532 A 1995 HCAPLUS
- (2) Duerr, D; US 3284289 A 1966 HCAPLUS
- (3) Duerr, D; US 4209319 A 1980 HCAPLUS
- (4) Hokko Chem Ind Co; EP 0429281 A 1991 HCAPLUS

IT 287937-99-9P
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(prepn. of N2-phenylamidines as fungicides)
RN 287937-99-9 HCAPLUS
CN Methanimidamide, N'-[2,5-dimethyl-4-[3-(trifluoromethyl)phenoxy]phenyl]-N,N-dimethyl- (9CI) (CA INDEX NAME)



=> fil reg
FILE 'REGISTRY' ENTERED AT 15:38:58 ON 13 MAR 2003
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STRUCTURE FILE UPDATES: 12 MAR 2003 HIGHEST RN 498527-50-7
DICTIONARY FILE UPDATES: 12 MAR 2003 HIGHEST RN 498527-50-7

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

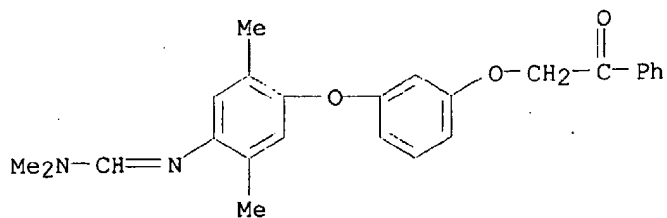
Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. See HELP PROPERTIES for more information. See STNote 27, Searching Properties in the CAS Registry File, for complete details:
<http://www.cas.org/ONLINE/STN/STNOTES/stnotes27.pdf>

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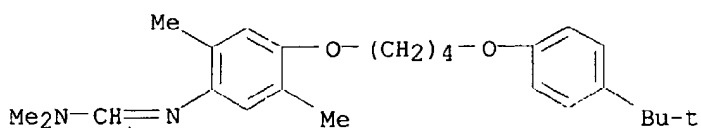
L30 411 ANSWERS REGISTRY COPYRIGHT 2003 ACS
IN Methanimidamide, N'-[2,5-dimethyl-4-[3-(2-oxo-2-phenylethoxy)phenoxy]phenyl]-N,N-dimethyl- (9CI)
MF C25 H26 N2 O3



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

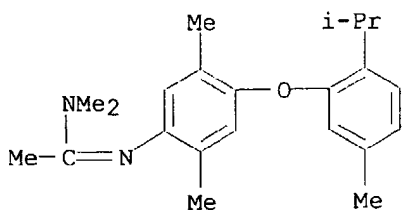
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L30 411 ANSWERS REGISTRY COPYRIGHT 2003 ACS
 IN Methanimidamide, N'-[4-[4-[4-(1,1-dimethylethyl)phenoxy]butoxy]-2,5-dimethylphenyl]-N,N-dimethyl- (9CI)
 MF C25 H36 N2 O2



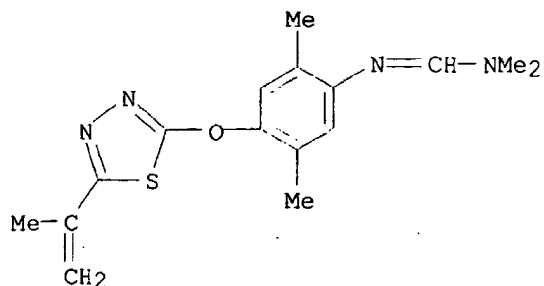
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L30 411 ANSWERS REGISTRY COPYRIGHT 2003 ACS
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 MF C22 H30 N2 O



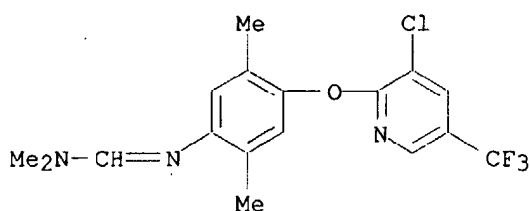
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L30 411 ANSWERS REGISTRY COPYRIGHT 2003 ACS
 IN Methanimidamide, N'-[2,5-dimethyl-4-[[5-(1-methylethenyl)-1,3,4-thiadiazol-2-yl]oxy]phenyl]-N,N-dimethyl- (9CI)
 MF C16 H20 N4 O S



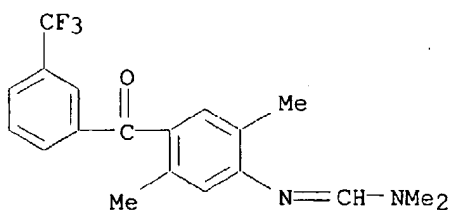
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L30 411 ANSWERS REGISTRY COPYRIGHT 2003 ACS
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 MF C17 H17 Cl F3 N3 O



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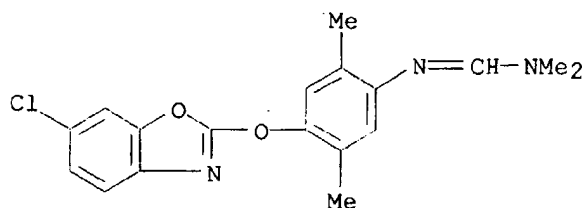
L30 411 ANSWERS REGISTRY COPYRIGHT 2003 ACS
 IN Methanimidamide, N'-[2,5-dimethyl-4-[[3-(trifluoromethyl)benzoyl]phenyl]-N,N-dimethyl- (9CI)
 MF C19 H19 F3 N2 O



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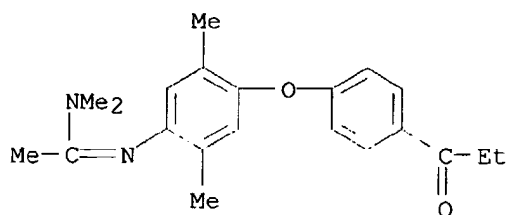
L30 411 ANSWERS REGISTRY COPYRIGHT 2003 ACS
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MF C18 H18 Cl N3 O2



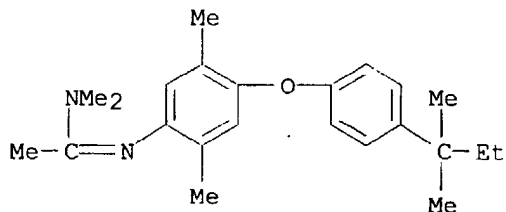
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 MF C21 H26 N2 O2



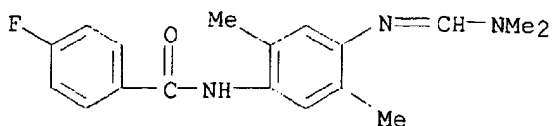
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 MF C23 H32 N2 O



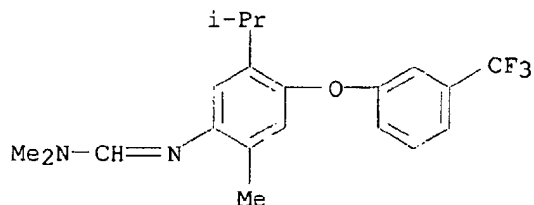
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 MF C18 H20 F N3 O



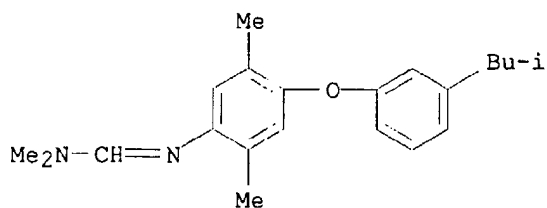
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L30 411 ANSWERS REGISTRY COPYRIGHT 2003 ACS
 IN Methanimidamide, N,N-dimethyl-N'-[2-methyl-5-(1-methylethyl)-4-[3-(trifluoromethyl)phenoxy]phenyl]- (9CI)
 MF C20 H23 F3 N2 O



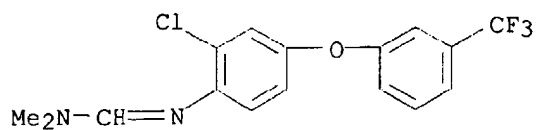
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L30 411 ANSWERS REGISTRY COPYRIGHT 2003 ACS
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 MF C21 H28 N2 O



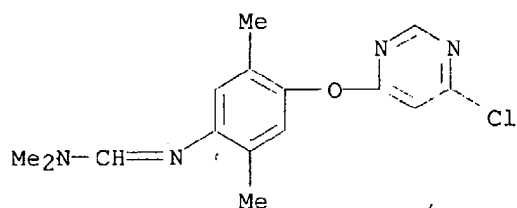
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 MF C16 H14 Cl F3 N2 O



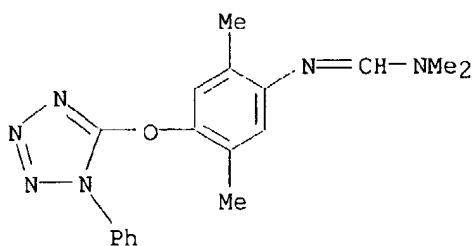
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 MF C15 H17 Cl N4 O



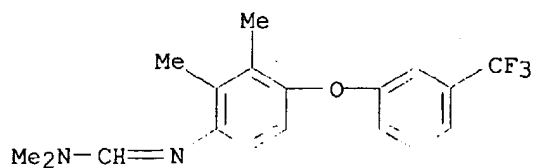
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 MF C18 H20 N6 O



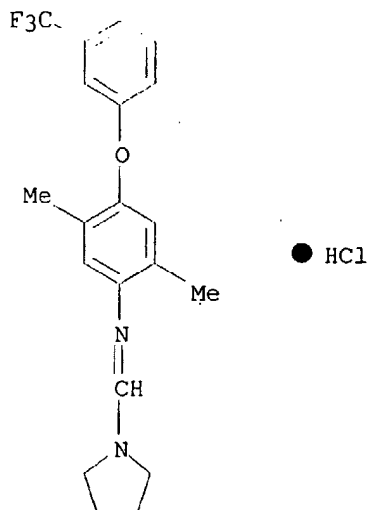
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 MF C18 H19 F3 N2 O

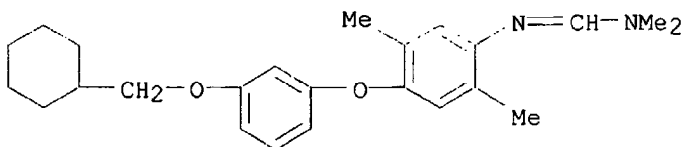


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 IN Pyrrolidine, 1-[[[2,5-dimethyl-4-[3-(trifluoromethyl)phenoxy]phenyl]imino]
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 MF C20 H21 F3 N2 O . Cl H

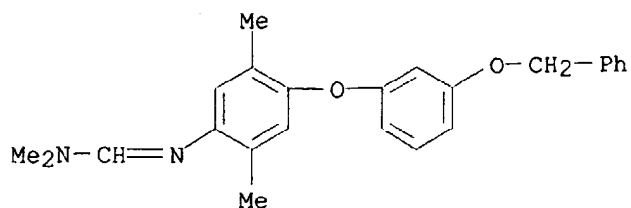


L30 411 ANSWERS REGISTRY COPYRIGHT 2003 ACS
 IN Methanimidamide, N'-[4-[3-(cyclohexylmethoxy)phenoxy]-2,5-dimethylphenyl]-
 N,N-dimethyl- (9CI)
 MF C24 H32 N2 O2



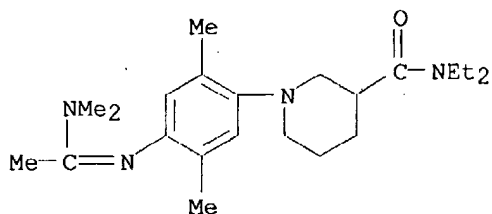
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 dimethyl- (9CI)
 MF C24 H26 N2 O2



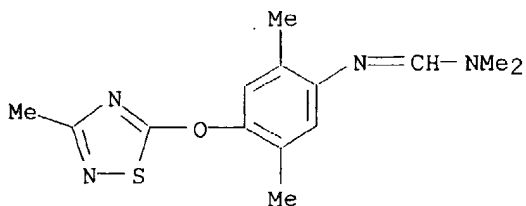
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L30 411 ANSWERS REGISTRY COPYRIGHT 2003 ACS
 IN 3-Piperidinecarboxamide, 1-[4-[[1-(dimethylamino)ethylidene]amino]-2,5-dimethylphenyl]-N,N-diethyl- (9CI)
 MF C22 H36 N4 O



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L30 411 ANSWERS REGISTRY COPYRIGHT 2003 ACS
 IN Methanimidamide, N'-[2,5-dimethyl-4-[(3-methyl-1,2,4-thiadiazol-5-yl)oxy]phenyl]-N,N-dimethyl- (9CI)
 MF C14 H18 N4 O S



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=> fil hcaplus

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 FILE LAST UPDATED: 12 Mar 2003 (20030312/ED)

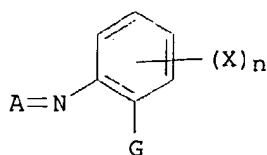
This file contains CAS Registry Numbers for easy and accurate substance identification.

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L97 ANSWER 1 OF 32 HCAPLUS COPYRIGHT 2003 ACS
 AN 2003:5930 HCAPLUS
 DN 138:73261
 TI Preparation of heterocyclyliminophenyl compounds as agricultural and horticultural fungicides and insecticides
 IN Niki; Toshio; Mizukoshi, Takashi; Takahashi, Hiroaki; Satow, Jun; Ogura, Tomoyuki; Yamagishi, Kazuhiro; Suzuki, Hiroyuki; Hayasaka, Fumio
 PA Nissan Chemical Industries, Ltd., Japan
 SO PCT Int. Appl., 508 pp.
 CODEN: PIXXD2
 DT Patent
 LA Japanese
 IC ICM C07D213-74
 ICS C07D239-42; C07D271-10; C07D277-42; C07D277-82; C07D279-06;
 C07D285-16; C07D285-12; C07D339-06; C07D327-04; C07D411-04;
 C07D411-10; C07D411-14; C07D413-04; C07D417-04; C07D417-10;
 C07D417-12; A01N043-28; A01N043-30; A01N043-40
 CC 28-14 (Heterocyclic Compounds (More Than One Hetero Atom))
 Section cross-reference(s): 5
 FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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| WO 2003000659 | A1 | 20030103 | WO 2002-JP6424 | 20020626 |
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| PRAI JP 2001-192285 | A | 20010626 | | |
| JP 2001-193428 | A | 20010626 | | |
| JP 2001-385120 | A | 20011218 | | |
| JP 2001-386846 | A | 20011220 | | |
| JP 2002-90213 | A | 20020328 | | |
| OS MARPAT 138:73261 | | | | |

GI



I

AB The title compds. I [A is an optionally substituted heterocycle; X is hydrogen or the like; and G is CH₂COOMe, N(Me)COOMe, or the like; n = 0 - 4] are prepd. Compds. of this invention at 500 ppm gave .gtoreq. 70% control of *Pyricularia oryzae*.

ST heterocyclyliminophenyl compd prepn agrochem fungicide insecticide

IT Fungicides

(agrochem.; prepn. of heterocyclyliminophenyl compds. as agricultural and horticultural fungicides and insecticides)

IT Insecticides

(prepn. of heterocyclyliminophenyl compds. as agricultural and horticultural fungicides and insecticides)

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| | 347873-61-4P | 347873-63-6P | 347873-64-7P | 347873-66-9P | 347873-69-2P |
| | 347873-71-6P | 347873-73-8P | 347873-75-0P | 347873-77-2P | 347873-79-4P |
| | 347873-81-8P | 347873-83-0P | 347873-85-2P | 347873-86-3P | 347873-87-4P |
| | 347873-88-5P | 347873-89-6P | 347873-90-9P | 347873-91-0P | 347873-93-2P |
| | 347873-94-3P | 347873-95-4P | 347873-96-5P | 347873-97-6P | 347873-99-8P |
| | 347874-00-4P | 347874-01-5P | 347874-02-6P | 347874-03-7P | 347874-04-8P |
| | 347874-05-9P | 347874-06-0P | 347874-07-1P | 347874-08-2P | 347874-09-3P |
| | 347874-10-6P | 347874-11-7P | 347874-12-8P | 347874-13-9P | 347874-14-0P |
| | 347874-15-1P | 347874-16-2P | 347874-17-3P | 347874-18-4P | 347874-19-5P |
| | 347874-20-8P | 347874-21-9P | 347874-22-0P | 347874-23-1P | 347874-25-3P |
| | 347874-26-4P | 347874-27-5P | 347874-28-6P | 347874-29-7P | 347874-30-0P |
| | 347874-31-1P | 347874-32-2P | 347874-33-3P | 347874-34-4P | 347874-35-5P |
| | 347874-36-6P | 347874-37-7P | 347874-38-8P | 347874-39-9P | 347874-40-2P |
| | 347874-41-3P | 347874-42-4P | 347874-44-6P | 347874-45-7P | 347874-46-8P |
| | 347874-47-9P | 347874-49-1P | 347874-51-5P | 347874-54-8P | 347874-56-0P |
| | 347874-58-2P | 347874-60-6P | 347874-62-8P | 347874-64-0P | 347874-66-2P |
| | 347874-68-4P | 347874-70-8P | 347874-72-0P | 347874-74-2P | 347874-76-4P |
| | 347874-77-5P | 347874-79-7P | 347874-80-0P | 347874-81-1P | 347874-82-2P |
| | 347874-83-3P | 347874-84-4P | 347874-85-5P | 347874-86-6P | 347874-87-7P |
| | 347874-88-8P | 347874-89-9P | 347874-91-3P | 347874-93-5P | 347874-94-6P |
| | 347874-96-8P | 347874-97-9P | 347874-98-0P | 347874-99-1P | 347875-00-7P |
| | 347875-01-8P | 347875-02-9P | 347875-03-0P | 347875-04-1P | 347875-06-3P |
| | 347875-07-4P | 347875-08-5P | 347875-09-6P | 347875-10-9P | 347875-11-0P |
| | 347875-12-1P | 347875-13-2P | 347875-14-3P | 347875-15-4P | 347875-16-5P |
| | 347875-17-6P | 347875-18-7P | 347875-20-1P | 347875-21-2P | 347875-22-3P |

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| 347875-23-4P | 347875-24-5P | 347875-25-6P | 347875-26-7P | 347875-27-8P |
| 347875-28-9P | 347875-29-0P | 347875-30-3P | 347875-31-4P | 347875-32-5P |
| 347875-33-6P | 347875-34-7P | 347875-35-8P | 347875-36-9P | 347875-38-1P |
| 347875-39-2P | 347875-40-5P | 347875-41-6P | 347875-42-7P | 347875-43-8P |
| 347875-44-9P | 347875-45-0P | 347875-47-2P | 347875-48-3P | 347875-49-4P |
| 347875-50-7P | 347875-51-8P | 347875-52-9P | 347875-53-0P | 347875-55-2P |
| 347875-56-3P | 347875-57-4P | 347875-58-5P | 347875-59-6P | 347875-60-9P |

RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of heterocyclyliminophenyl compds. as agricultural and horticultural fungicides and insecticides)

| | | | | | |
|----|--------------|--------------|--------------|--------------|--------------|
| IT | 347875-61-0P | 347875-62-1P | 347875-63-2P | 347875-65-4P | 347875-66-5P |
| | 347875-67-6P | 347875-68-7P | 347875-69-8P | 347875-71-2P | 347875-72-3P |
| | 347875-73-4P | 347875-74-5P | 347875-75-6P | 347875-76-7P | 347875-77-8P |
| | 347875-78-9P | 347875-79-0P | 347875-80-3P | 347875-81-4P | 347875-82-5P |
| | 347875-83-6P | 347875-84-7P | 347875-85-8P | 347875-86-9P | 347875-87-0P |
| | 347875-89-2P | 347875-90-5P | 347875-91-6P | 347875-92-7P | 347875-94-9P |
| | 347875-95-0P | 347875-96-1P | 347875-97-2P | 347875-98-3P | 347875-99-4P |
| | 347876-00-0P | 347876-01-1P | 347876-02-2P | 347876-03-3P | 347876-04-4P |
| | 347876-05-5P | 347876-06-6P | 347876-07-7P | 347876-08-8P | 347876-09-9P |
| | 347876-10-2P | 347876-11-3P | 347876-12-4P | 347876-13-5P | 347876-14-6P |
| | 347876-15-7P | 347876-16-8P | 347876-17-9P | 347876-18-0P | 347876-19-1P |
| | 347876-20-4P | 347876-21-5P | 347876-26-0P | 347876-27-1P | 347876-28-2P |
| | 347876-29-3P | 347876-30-6P | 347876-32-8P | 347876-33-9P | 347876-34-0P |
| | 347876-35-1P | 347876-36-2P | 347876-37-3P | 347876-39-5P | 347876-40-8P |
| | 347876-41-9P | 347876-42-0P | 347876-43-1P | 347876-44-2P | 347876-45-3P |
| | 347876-46-4P | 347876-47-5P | 347876-48-6P | 347876-49-7P | 347876-50-0P |
| | 347876-51-1P | 347876-52-2P | 347876-53-3P | 347876-54-4P | 347876-55-5P |
| | 347876-56-6P | 347876-57-7P | 347876-58-8P | 347876-59-9P | 347876-60-2P |
| | 347876-61-3P | 347876-62-4P | 347876-63-5P | 347876-64-6P | 347876-65-7P |
| | 347876-66-8P | 347876-67-9P | 347876-68-0P | 347876-69-1P | 347876-70-4P |
| | 347876-71-5P | 347876-72-6P | 347876-73-7P | 347876-74-8P | 347876-75-9P |
| | 347876-76-0P | 347876-77-1P | 347876-78-2P | 347876-79-3P | 347876-80-6P |
| | 347876-81-7P | 347876-82-8P | 347876-83-9P | 347876-84-0P | 347876-85-1P |
| | 347876-86-2P | 347876-87-3P | 347876-88-4P | 347876-89-5P | 347876-90-8P |
| | 347876-91-9P | 347876-92-0P | 347876-93-1P | 347876-94-2P | 347876-95-3P |
| | 347876-97-5P | 347876-98-6P | 347876-99-7P | 347877-00-3P | 347877-01-4P |
| | 347877-02-5P | 347877-03-6P | 347877-04-7P | 347877-05-8P | 347877-06-9P |
| | 347877-07-0P | 347877-08-1P | 347877-09-2P | 347877-10-5P | 347877-11-6P |
| | 347877-12-7P | 347877-13-8P | 347877-14-9P | 347877-15-0P | 347877-16-1P |
| | 347877-17-2P | 347877-19-4P | 347877-20-7P | 347877-21-8P | 347877-22-9P |
| | 347877-25-2P | 347877-26-3P | 347877-27-4P | 347877-28-5P | 347877-29-6P |
| | 347877-30-9P | 347877-31-0P | 347877-32-1P | 347877-33-2P | 347877-35-4P |
| | 347877-36-5P | 347877-37-6P | 347877-38-7P | 347877-39-8P | 347877-40-1P |
| | 347877-41-2P | 347877-42-3P | 347877-43-4P | 347877-44-5P | 347877-45-6P |
| | 347877-46-7P | 347877-47-8P | 347877-48-9P | 347877-49-0P | 347877-50-3P |
| | 347877-51-4P | 347877-52-5P | 347877-53-6P | 347877-54-7P | 347877-55-8P |
| | 347877-56-9P | 347877-57-0P | 347877-58-1P | 347877-59-2P | 347877-60-5P |
| | 347877-61-6P | 347877-62-7P | 347877-63-8P | 347877-64-9P | 347877-65-0P |
| | 347877-66-1P | 347877-67-2P | 347877-68-3P | 347877-69-4P | 347877-70-7P |
| | 347877-71-8P | 347877-72-9P | 347877-73-0P | 347877-74-1P | 347877-75-2P |
| | 347877-76-3P | 347877-77-4P | 347877-78-5P | 481056-63-7P | 481056-64-8P |
| | 481056-65-9P | 481056-67-1P | 481056-68-2P | 481056-71-7P | 481056-72-8P |
| | 481056-73-9P | 481056-74-0P | 481056-75-1P | 481056-76-2P | 481056-77-3P |
| | 481056-78-4P | 481056-79-5P | 481056-80-8P | 481056-81-9P | 481056-82-0P |
| | 481056-83-1P | 481056-84-2P | 481056-85-3P | 481056-86-4P | 481056-87-5P |
| | 481056-88-6P | 481056-89-7P | 481056-90-0P | 481056-91-1P | |
| | 481056-92-2P | 481056-93-3P | 481056-94-4P | 481056-95-5P | 481056-96-6P |
| | 481056-97-7P | | | | |

RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of heterocyclyliminophenyl compds. as agricultural and horticultural fungicides and insecticides)

| | | | | | |
|----|--------------|---------------------|--------------|---------------------|--------------|
| IT | 481056-98-8P | 481056-99-9P | 481057-00-5P | 481057-01-6P | 481057-02-7P |
| | 481057-03-8P | 481057-04-9P | 481057-05-0P | 481057-06-1P | |
| | 481057-07-2P | 481057-08-3P | 481057-09-4P | 481057-10-7P | 481057-11-8P |
| | 481057-12-9P | 481057-13-0P | 481057-14-1P | 481057-15-2P | 481057-16-3P |
| | 481057-17-4P | 481057-18-5P | 481057-20-9P | 481057-21-0P | 481057-22-1P |
| | 481057-23-2P | 481057-24-3P | 481057-25-4P | 481057-26-5P | 481057-27-6P |
| | 481057-28-7P | 481057-29-8P | 481057-30-1P | 481057-31-2P | 481057-32-3P |
| | 481057-33-4P | 481057-34-5P | 481057-35-6P | 481057-36-7P | 481057-37-8P |
| | 481057-38-9P | 481057-39-0P | 481057-40-3P | 481057-41-4P | 481057-42-5P |
| | 481057-43-6P | 481057-44-7P | 481057-45-8P | 481057-46-9P | 481057-47-0P |
| | 481057-48-1P | 481057-49-2P | 481057-50-5P | 481057-51-6P | 481057-52-7P |
| | 481057-53-8P | 481057-54-9P | 481057-55-0P | 481057-56-1P | 481057-57-2P |
| | 481057-58-3P | 481057-59-4P | 481057-60-7P | 481057-61-8P | 481057-62-9P |
| | 481057-63-0P | 481057-64-1P | 481057-65-2P | 481057-66-3P | 481057-67-4P |
| | 481057-68-5P | 481057-69-6P | 481057-70-9P | 481057-71-0P | 481057-72-1P |
| | 481057-73-2P | 481057-74-3P | 481057-75-4P | 481057-76-5P | 481057-77-6P |
| | 481057-78-7P | 481057-79-8P | 481057-80-1P | 481057-81-2P | 481057-82-3P |
| | 481057-83-4P | 481057-84-5P | 481057-85-6P | 481057-86-7P | 481057-87-8P |
| | 481057-88-9P | 481057-89-0P | 481057-90-3P | 481057-91-4P | 481057-92-5P |
| | 481057-93-6P | 481057-94-7P | 481057-95-8P | 481057-96-9P | 481057-97-0P |
| | 481057-98-1P | 481057-99-2P | 481058-00-8P | 481058-01-9P | 481058-02-0P |
| | 481058-03-1P | 481058-04-2P | 481058-05-3P | 481058-06-4P | 481058-07-5P |
| | 481058-08-6P | 481058-09-7P | 481058-10-0P | 481058-11-1P | 481058-12-2P |
| | 481058-14-4P | 481058-15-5P | 481058-16-6P | 481058-17-7P | 481058-18-8P |
| | 481058-19-9P | 481058-20-2P | 481058-21-3P | 481058-22-4P | 481058-23-5P |
| | 481058-24-6P | 481058-25-7P | 481058-26-8P | 481058-27-9P | 481058-28-0P |
| | 481058-29-1P | 481058-30-4P | 481058-32-6P | 481058-33-7P | 481058-34-8P |
| | 481058-35-9P | 481058-36-0P | 481058-37-1P | 481058-38-2P | 481058-39-3P |
| | 481058-40-6P | 481058-41-7P | 481058-42-8P | 481058-43-9P | 481058-44-0P |
| | 481058-45-1P | 481058-46-2P | 481058-47-3P | 481058-48-4P | 481058-49-5P |
| | 481058-50-8P | 481058-51-9P | 481058-52-0P | 481058-53-1P | 481058-54-2P |
| | 481058-55-3P | 481058-56-4P | 481058-57-5P | 481058-58-6P | 481058-59-7P |
| | 481058-60-0P | 481058-61-1P | 481058-62-2P | 481058-63-3P | 481058-64-4P |
| | 481058-65-5P | 481058-66-6P | 481058-67-7P | 481058-68-8P | 481058-69-9P |
| | 481058-70-2P | 481058-71-3P | 481058-72-4P | 481058-73-5P | 481058-74-6P |
| | 481058-75-7P | 481058-76-8P | 481058-77-9P | 481058-78-0P | 481058-79-1P |
| | 481058-80-4P | 481058-81-5P | 481058-82-6P | 481058-83-7P | 481058-84-8P |
| | 481058-85-9P | 481058-86-0P | 481058-87-1P | 481058-88-2P | 481058-89-3P |
| | 481058-90-6P | 481058-91-7P | 481058-92-8P | 481058-93-9P | 481058-94-0P |
| | 481058-95-1P | 481058-96-2P | 481058-97-3P | 481058-98-4P | 481058-99-5P |
| | 481059-00-1P | 481059-01-2P | 481059-02-3P | 481059-03-4P | 481059-04-5P |
| | 481059-05-6P | 481059-06-7P | 481059-07-8P | 481059-08-9P | 481059-09-0P |
| | 481059-10-3P | 481059-11-4P | 481059-12-5P | 481059-13-6P | 481059-14-7P |
| | 481059-15-8P | 481059-16-9P | 481059-17-0P | 481059-18-1P | 481059-19-2P |
| | 481059-20-5P | 481059-21-6P | 481059-22-7P | 481059-23-8P | 481059-24-9P |
| | 481059-25-0P | 481059-26-1P | 481059-27-2P | 481059-28-3P | 481059-29-4P |
| | 481059-30-7P | 481059-31-8P | 481059-32-9P | 481059-33-0P | 481059-34-1P |
| | 481059-35-2P | | | | |

RL: **AGR (Agricultural use)**; BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of heterocyclyliminophenyl compds. as agricultural and horticultural fungicides and insecticides)

| | | | | | |
|----|--------------|--------------|--------------|--------------|--------------|
| IT | 481059-36-3P | 481059-37-4P | 481059-38-5P | 481059-39-6P | 481059-40-9P |
| | 481059-41-0P | 481059-42-1P | 481059-43-2P | 481059-44-3P | 481059-45-4P |
| | 481059-46-5P | 481059-47-6P | 481059-48-7P | 481059-49-8P | 481059-50-1P |
| | 481059-52-3P | 481059-53-4P | 481059-54-5P | 481059-55-6P | 481059-56-7P |
| | 481059-57-8P | 481059-58-9P | 481059-59-0P | 481059-60-3P | 481059-61-4P |
| | 481059-62-5P | 481059-63-6P | 481059-64-7P | 481059-65-8P | 481059-66-9P |
| | 481059-67-0P | 481059-68-1P | 481059-69-2P | 481059-70-5P | 481059-71-6P |
| | 481059-72-7P | 481059-73-8P | 481059-74-9P | 481059-75-0P | 481059-76-1P |

| | | | | |
|--------------|--------------|--------------|--------------|--------------|
| 481059-77-2P | 481059-78-3P | 481059-79-4P | 481059-80-7P | 481059-81-8P |
| 481059-82-9P | 481059-83-0P | 481059-84-1P | 481059-85-2P | 481059-86-3P |
| 481059-87-4P | 481059-88-5P | 481059-89-6P | 481059-90-9P | 481059-91-0P |
| 481059-92-1P | 481059-93-2P | 481059-94-3P | 481059-95-4P | 481059-96-5P |
| 481059-97-6P | 481059-98-7P | 481059-99-8P | 481060-00-8P | 481060-01-9P |
| 481060-02-0P | 481060-03-1P | 481060-04-2P | 481060-05-3P | 481060-06-4P |
| 481060-07-5P | 481060-08-6P | 481060-09-7P | 481060-11-1P | 481060-12-2P |
| 481060-13-3P | 481060-14-4P | 481060-15-5P | 481060-16-6P | 481060-17-7P |
| 481060-18-8P | 481060-19-9P | 481060-20-2P | 481060-21-3P | 481060-22-4P |
| 481060-23-5P | 481060-24-6P | 481060-25-7P | 481060-26-8P | 481060-27-9P |
| 481060-28-0P | 481060-29-1P | 481060-30-4P | 481060-31-5P | 481060-32-6P |
| 481060-33-7P | 481060-34-8P | 481060-35-9P | 481060-36-0P | 481060-37-1P |
| 481060-38-2P | 481060-39-3P | 481060-40-6P | 481060-41-7P | 481060-42-8P |
| 481060-43-9P | 481060-44-0P | 481060-45-1P | 481060-46-2P | 481060-47-3P |
| 481060-48-4P | 481060-49-5P | 481060-50-8P | 481060-51-9P | 481060-52-0P |
| 481060-53-1P | 481060-54-2P | 481060-55-3P | 481060-56-4P | 481060-57-5P |
| 481060-58-6P | 481060-59-7P | 481060-60-0P | 481060-61-1P | 481060-62-2P |
| 481060-63-3P | 481060-64-4P | 481060-65-5P | 481060-66-6P | 481060-67-7P |
| 481060-68-8P | 481060-69-9P | 481060-70-2P | 481060-71-3P | 481060-72-4P |
| 481060-73-5P | 481060-74-6P | 481060-75-7P | 481060-76-8P | 481060-77-9P |
| 481060-78-0P | 481060-79-1P | 481060-80-4P | 481060-81-5P | 481060-82-6P |
| 481060-83-7P | 481060-84-8P | 481060-85-9P | 481060-86-0P | 481060-87-1P |
| 481060-88-2P | 481060-89-3P | 481060-90-6P | 481060-91-7P | 481060-92-8P |
| 481060-93-9P | 481060-94-0P | 481060-95-1P | 481060-96-2P | 481060-97-3P |
| 481060-98-4P | 481060-99-5P | 481061-00-1P | 481061-01-2P | 481061-02-3P |
| 481061-03-4P | 481061-04-5P | 481061-05-6P | 481061-06-7P | 481061-07-8P |
| 481061-08-9P | 481061-09-0P | 481061-10-3P | 481061-11-4P | 481061-12-5P |
| 481061-13-6P | 481061-14-7P | 481061-15-8P | 481061-16-9P | 481061-17-0P |
| 481061-18-1P | 481061-19-2P | 481061-20-5P | 481061-21-6P | 481061-22-7P |
| 481061-23-8P | 481061-24-9P | 481061-25-0P | 481061-26-1P | 481061-27-2P |
| 481061-28-3P | 481061-29-4P | 481061-30-7P | 481061-31-8P | 481061-32-9P |
| 481061-33-0P | 481061-34-1P | 481061-35-2P | 481061-38-5P | 481061-41-0P |
| 481061-43-2P | 481061-45-4P | 481061-47-6P | 481061-49-8P | 481061-51-2P |
| 481061-53-4P | 481061-55-6P | 481061-57-8P | 481061-59-0P | 481061-61-4P |
| 481061-63-6P | 481061-65-8P | 481061-67-0P | 481061-69-2P | 481061-70-5P |
| 481061-71-6P | 481061-72-7P | 481061-73-8P | 481061-74-9P | 481061-75-0P |
| 481061-76-1P | 481061-77-2P | 481061-78-3P | 481061-79-4P | 481061-80-7P |
| 481061-81-8P | 481061-82-9P | 481061-83-0P | 481061-84-1P | 481061-85-2P |
| 481061-86-3P | 481061-87-4P | 481061-88-5P | 481061-89-6P | 481061-90-9P |

RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of heterocyclyliminophenyl compds. as agricultural and horticultural fungicides and insecticides)

| | | | | | |
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| IT | 481061-91-0P | 481061-92-1P | 481061-93-2P | 481061-94-3P | 481061-95-4P |
| | 481061-96-5P | 481061-97-6P | 481061-98-7P | 481061-99-8P | 481062-00-4P |
| | 481062-01-5P | 481062-02-6P | 481062-03-7P | 481062-04-8P | 481062-05-9P |
| | 481062-06-0P | 481062-07-1P | 481062-08-2P | 481062-10-6P | 481062-11-7P |
| | 481062-12-8P | 481062-13-9P | 481062-14-0P | 481062-15-1P | 481062-16-2P |
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| | 481062-27-5P | 481062-28-6P | 481062-29-7P | 481062-30-0P | 481062-31-1P |
| | 481062-32-2P | 481062-33-3P | 481062-34-4P | 481062-35-5P | 481062-36-6P |
| | 481062-37-7P | 481062-38-8P | 481062-39-9P | 481062-40-2P | 481062-41-3P |
| | 481062-42-4P | 481062-43-5P | 481062-44-6P | 481062-45-7P | 481062-46-8P |
| | 481062-47-9P | 481062-48-0P | 481062-49-1P | 481062-50-4P | 481062-51-5P |
| | 481062-52-6P | 481062-53-7P | 481062-54-8P | 481062-55-9P | 481062-56-0P |
| | 481062-57-1P | 481062-58-2P | 481062-59-3P | 481062-60-6P | 481062-61-7P |
| | 481062-62-8P | 481062-63-9P | 481062-64-0P | 481062-65-1P | 481062-66-2P |
| | 481062-67-3P | 481062-68-4P | 481062-69-5P | 481062-70-8P | 481062-71-9P |
| | 481062-72-0P | 481062-74-2P | 481062-75-3P | 481062-76-4P | 481062-77-5P |
| | 481062-78-6P | 481062-79-7P | 481062-80-0P | 481062-81-1P | 481062-82-2P |
| | 481062-83-3P | 481062-84-4P | 481062-85-5P | 481062-86-6P | 481062-87-7P |

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|--------------|--------------|--------------|--------------|--------------|
| 481062-88-8P | 481062-89-9P | 481062-90-2P | 481062-91-3P | 481062-92-4P |
| 481062-93-5P | 481062-94-6P | 481062-95-7P | 481062-96-8P | 481062-97-9P |
| 481062-98-0P | 481062-99-1P | 481063-00-7P | 481063-01-8P | 481063-02-9P |
| 481063-03-0P | 481063-04-1P | 481063-05-2P | 481063-07-4P | 481063-09-6P |
| 481063-11-0P | 481063-12-1P | 481063-13-2P | 481063-14-3P | 481063-16-5P |
| 481063-18-7P | 481063-20-1P | 481063-23-4P | 481063-25-6P | 481063-27-8P |
| 481063-29-0P | 481063-31-4P | 481063-32-5P | 481063-34-7P | 481063-37-0P |
| 481063-39-2P | 481063-46-1P | 481063-49-4P | 481063-50-7P | 481063-54-1P |
| 481063-57-4P | 481063-60-9P | 481063-62-1P | 481063-65-4P | 481063-69-8P |
| 481063-70-1P | 481063-72-3P | 481063-75-6P | 481063-77-8P | 481063-80-3P |
| 481063-83-6P | 481063-85-8P | 481063-87-0P | 481063-88-1P | 481063-90-5P |
| 481063-93-8P | 481063-95-0P | 481063-96-1P | 481063-98-3P | 481063-99-4P |
| 481064-01-1P | 481064-02-2P | 481064-03-3P | 481064-05-5P | 481064-06-6P |
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| 481064-18-0P | 481064-20-4P | 481064-22-6P | 481064-24-8P | 481064-26-0P |
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| 481064-42-0P | 481064-43-1P | 481064-44-2P | 481064-45-3P | 481064-46-4P |
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| 481064-52-2P | 481064-53-3P | 481064-54-4P | 481064-55-5P | 481064-56-6P |
| 481064-57-7P | 481064-58-8P | 481064-59-9P | 481064-60-2P | 481064-61-3P |
| 481064-62-4P | 481064-63-5P | 481064-64-6P | 481064-65-7P | 481064-66-8P |
| 481064-67-9P | 481064-68-0P | 481064-69-1P | 481064-70-4P | 481064-71-5P |
| 481064-72-6P | 481064-73-7P | 481064-74-8P | 481064-75-9P | 481064-76-0P |
| 481064-77-1P | 481064-78-2P | 481064-79-3P | 481064-80-6P | 481064-81-7P |
| 481064-82-8P | 481064-83-9P | 481064-84-0P | 481064-85-1P | 481064-86-2P |
| 481064-87-3P | 481064-88-4P | 481064-89-5P | 481064-90-8P | 481064-91-9P |

RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of heterocyclyliminophenyl compds. as agricultural and horticultural fungicides and insecticides)

| | | | | | |
|----|--------------|--------------|--------------|--------------|--------------|
| IT | 481064-92-0P | 481064-93-1P | 481064-94-2P | 481064-95-3P | 481064-96-4P |
| | 481064-97-5P | 481064-98-6P | 481064-99-7P | 481065-00-3P | 481065-01-4P |
| | 481065-02-5P | 481065-03-6P | 481065-04-7P | 481065-05-8P | 481065-06-9P |
| | 481065-07-0P | 481065-08-1P | 481065-09-2P | 481065-10-5P | 481065-11-6P |
| | 481065-12-7P | 481065-13-8P | 481065-14-9P | 481065-15-0P | 481065-16-1P |
| | 481065-17-2P | 481065-18-3P | 481065-19-4P | 481065-20-7P | 481065-21-8P |
| | 481065-22-9P | 481065-23-0P | 481065-24-1P | 481065-25-2P | 481065-26-3P |
| | 481065-27-4P | 481065-28-5P | 481065-29-6P | 481065-30-9P | 481065-31-0P |
| | 481065-32-1P | 481065-33-2P | 481065-34-3P | 481065-35-4P | 481065-37-6P |
| | 481065-38-7P | 481065-39-8P | 481065-40-1P | 481065-41-2P | 481065-42-3P |
| | 481065-43-4P | 481065-44-5P | 481069-75-4P | | |

RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of heterocyclyliminophenyl compds. as agricultural and horticultural fungicides and insecticides)

IT 481058-13-3P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of heterocyclyliminophenyl compds. as agricultural and horticultural fungicides and insecticides)

IT 57-14-7, 1,1-Dimethylhydrazine 60-34-4, Methylhydrazine 62-53-3, Aniline, reactions 70-11-1, Phenacyl bromide 74-88-4, Methyl iodide, reactions 74-89-5, Methylamine, reactions 75-03-6, Ethyl iodide 75-15-0, Carbon disulfide, reactions 77-78-1, Dimethyl sulfate 79-22-1, Methyl chloroformate 83-41-0, 2,3-Dimethylnitrobenzene 88-74-4, 2-Nitroaniline 89-60-1, 2-Chloro-5-methylnitrobenzene 95-55-6, 2-Aminophenol 96-32-2, Methyl bromoacetate 98-88-4, Benzoyl chloride 99-73-0, 2-Bromo-1-(4-bromophenyl)ethanone 107-14-2,

Chloroacetonitrile 107-30-2, Chloromethyl methyl ether 107-31-3, Methyl formate 108-59-8, Dimethyl malonate 109-92-2, Ethyl vinyl ether 111-49-9 123-07-9, 4-Ethylphenol 124-40-3, Dimethylamine, reactions 124-63-0, Methanesulfonyl chloride 128-04-1, Sodium dimethyldithiocarbamate 302-01-2, Hydrazine, reactions 333-27-7, Methyl trifluoromethanesulfonate 367-57-7 383-53-9 407-25-0, Trifluoroacetic anhydride 421-52-3 431-35-6, 3-Bromo-1,1,1-trifluoro-2-propanone 463-71-8, Thiophosgene 536-38-9 541-41-3, Ethyl chloroformate 556-61-6, Methyl isothiocyanate 557-21-1, Zinc cyanide 570-24-1, 2-Methyl-6-nitroaniline 589-09-3 593-56-6 615-20-3, 2-Chlorobenzothiazole 615-43-0, 2-Iodoaniline 618-39-3, Benzamidine 758-08-7 925-90-6, Ethylmagnesium bromide 934-36-1, 1,3-Benzodithiole-2-thione 937-60-0 1068-57-1, Acetohydrazide 1451-82-7 1513-65-1, 2,6-Difluoropyridine 2407-68-3, 3-Dimethylaminoacrylonitrile 2631-72-3 2782-91-4, Tetramethylthiourea 2835-77-0 3320-86-3, 2-Nitrophenyl isocyanate 3740-52-1, 2-(2-Nitrophenyl)acetic acid 5000-66-8, 2-Chlorophenacyl bromide 5188-07-8, Sodium methylmercaptan 5344-90-1, 2-Aminobenzyl alcohol 5470-11-1, Hydroxylamine hydrochloride 6160-65-2 7664-41-7, Ammonia, reactions 13223-25-1, 2-Chloro-4,6-dimethoxypyrimidine 18165-76-9, Trimethylsilylmethanethiol 22118-09-8, Bromoacetyl chloride 26682-99-5, Methyl 2-(2-aminophenyl)acetate 29585-02-2, 1-Bromo-4-methyl-2-pentanone 30095-47-7 30525-89-4, Paraformaldehyde 31949-21-0, 2-Methoxyphenacyl bromide 32315-10-9, Triphosgene 35161-71-8, N-Methyl-N-propargylamine 52334-81-3, 2-Chloro-5-trifluoromethylpyridine 52605-49-9 61964-74-7 80194-68-9 95728-57-7 177787-26-7, 3,4,5-Trifluorobenzoyl chloride 208173-16-4 210647-38-4 347877-89-8 443914-94-1 445470-09-7 481066-16-4 481066-17-5 481066-18-6 481066-21-1

RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. of heterocyclyliminophenyl compds. as agricultural and horticultural fungicides and insecticides)

IT 134-20-3P 606-27-9P 5326-87-4P 10010-93-2P 14983-92-7P
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 481065-77-4P 481065-78-5P 481065-79-6P 481065-80-9P 481065-81-0P
 481065-82-1P 481065-83-2P 481065-84-3P 481065-85-4P 481065-86-5P
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 481066-15-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of heterocyclyliminophenyl compds. as agricultural and horticultural fungicides and insecticides)

IT 64-18-6DP, Formic acid, salts 64-19-7DP, Acetic acid, salts
 144-62-7DP, Oxalic acid, salts 7647-01-0DP, Hydrochloric acid, salt
 10034-85-2DP, Hydroiodic acid, salts 10035-10-6DP, Hydrobromic acid, salts

RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN

(Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of heterocyclyliminophenyl compds. or salts thereof as agricultural and horticultural fungicides and insecticides)

RE.CNT 20 THERE ARE 20 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE

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- (20) Sumitomo Chemical Co Ltd; US 5220027 A 1988 HCAPLUS

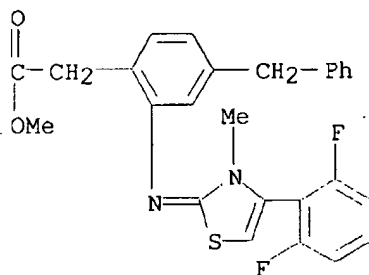
IT 481056-91-1P

RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of heterocyclyliminophenyl compds. as agricultural and horticultural fungicides and insecticides)

RN 481056-91-1 HCAPLUS

CN Benzeneacetic acid, 2-[[4-(2,6-difluorophenyl)-3-methyl-2(3H)-thiazolylidene]amino]-4-(phenylmethyl)-, methyl ester (9CI) (CA INDEX NAME)



L97 ANSWER 2 OF 32 HCAPLUS COPYRIGHT 2003 ACS

AN 2002:182202 HCAPLUS

DN 136:232317

TI Preparation of heterocyclylbenzenes as herbicides and defoliants.

IN Gupta, Sandeep; Wu, Shao-Yong; Tsukamoto, Masamitsu; Pulman, David A.; Ying, Bai-Ping

PA ISK Americas Incorporated, USA

SO U.S., 74 pp., Cont.-in-part of U.S. Ser. No. 958,313.

CODEN: USXXAM

DT Patent

LA English

IC ICM C07D239-02

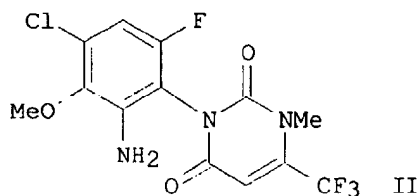
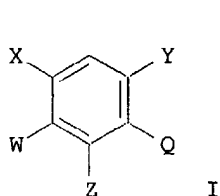
NCL 544309000

CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 5

FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-------------------|------|--|-----------------|--------------|
| PI | US 6355799 | B1 | 20020312 | US 2000-530373 | 20000427 |
| | WO 9921837 | A1 | 19990506 | WO 1998-US17197 | 19980821 <-- |
| | W: | | AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | |
| | RW: | | GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | |
| | US 2002133007 | A1 | 20020919 | US 2001-930149 | 20010816 |
| PRAI | US 1997-958313 | A2 | 19971027 | | |
| | WO 1998-US17197 | W | 19980821 | | |
| | US 2000-530373 | A3 | 20000427 | | |
| OS | MARPAT 136:232317 | | | | |
| GI | | | | | |



- AB Title compds. [I; X = H, halo, NO₂, amino, NHR, NR₂, amide, thioamide, cyano, alkylcarbonyl, alkoxy, alkoxy, haloalkoxy, alkoxy, PhCH₂O, aryloxy, heteroaryloxy; Y = H, halo, NO₂; W = H, OR, SR, NHR, NR₂, CH₂R, CHR₂, CR₃, halo, NO₂, cyano; R = H, (substituted) alkyl, alkenyl, alkynyl, cycloalkyl, aryl, heteroaryl, alkoxy, cycloalkoxy, aryloxy, heteroaryloxy, alkylsulfonyl, PhCH₂, alkylcarbonyl, aryloxy, etc.; Q = (substituted) heterocyclyl; Z = amino, OH, SH, CHO, CO₂H, cyano, alkylcarbonyl, arylcarbonyl, N₃, etc.] were prepd. Thus, 3-(4-chloro-6-fluoro-3-methoxy-2-nitrophenyl)-1-methyl-6-trifluoromethyl-2,4(1H,3H)-pyrimidinedione (prepn. given) was stirred with Fe powder in HOAc to give title compd. (II). II at 7.8 g/ha post-emergent gave 100% control of *Amaranthus retroflexus* and *Abutilon theophrasti*.
- ST substituted benzene compd process prepn herbicidal defoliant compn; heterocyclylbenzene prepn herbicide defoliant; pyrimidinedione prepn herbicide defoliant; tetrazolone prepn herbicide defoliant; triazolone prepn herbicide defoliant; pyrazole 1 prepn herbicide; phthalimide prepn herbicide; pyridiazinone prepn herbicide
- IT Cotton
Potato (*Solanum tuberosum*)
(defoliation; prepn. of heterocyclylbenzenes as herbicides and defoliants)
- IT Defoliants
Herbicides
(prepn. of heterocyclylbenzenes as herbicides and defoliants)
- IT Cereal (grain)
(protection of; prepn. of heterocyclylbenzenes as herbicides and defoliants)
- IT 212755-09-4P, 2,4(1H,3H)-Pyrimidinedione, 3-(2-amino-4-chloro-6-fluoro-3-

hydroxyphenyl)-1-methyl-6-(trifluoromethyl)- 224163-11-5P, Acetamide, 2-chloro-N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]- 224163-76-2P, 2-Naphthalenecarboxamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]- 224166-62-5P, 3(2H)-Pyridazinone, 2-(2-amino-4-chloro-6-fluoro-3-methoxyphenyl)-5-(trifluoromethyl)- 224166-80-7P, 1H-Isoindole-1,3(2H)-dione, 2-(4-chloro-6-fluoro-3-hydroxy-2-nitrophenyl)- 224167-67-3P, 2,4(1H,3H)-Pyrimidinedione, 3-(4-chloro-6-fluoro-2-hydrazino-3-methoxyphenyl)-1-methyl-6-(trifluoromethyl)-
 RL: AGR (Agricultural use); BSU (Biological study, unclassified); BUU (Biological use, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(prepn. of heterocyclbenzenes as herbicides and defoliants)
 IT 212755-06-1P, 2,4(1H,3H)-Pyrimidinedione, 3-(2-amino-4-bromo-6-fluoro-3-hydroxyphenyl)-1-methyl-6-(trifluoromethyl)- 212755-08-3P, 2,4(1H,3H)-Pyrimidinedione, 3-(4-chloro-6-fluoro-3-hydroxy-2-nitrophenyl)-1-methyl-6-(trifluoromethyl)- 212902-22-2P, Cyclopropanecarboxamide, N-[5-chloro-2-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]phenyl]- 212904-47-7P, 2,4(1H,3H)-Pyrimidinedione, 1-methyl-3-(2-nitrophenyl)-6-(trifluoromethyl)- 212904-48-8P, 2,4(1H,3H)-Pyrimidinedione, 1-methyl-3-[2-nitro-4-(trifluoromethyl)phenyl]-6-(trifluoromethyl)- 224162-36-1P, 2,4(1H,3H)-Pyrimidinedione, 3-(4-chloro-6-fluoro-3-methoxy-2-nitrophenyl)-6-(trifluoromethyl)- 224162-37-2P, 2,4(1H,3H)-Pyrimidinedione, 3-(4-chloro-6-fluoro-3-hydroxy-2-nitrophenyl)-6-(trifluoromethyl)- 224162-38-3P, 2,4(1H,3H)-Pyrimidinedione, 3-(2-amino-4-chloro-6-fluoro-3-methoxyphenyl)-6-(trifluoromethyl)- 224162-39-4P, 2,4(1H,3H)-Pyrimidinedione, 3-(2-amino-4-chloro-6-fluoro-3-methoxyphenyl)-1-methyl-6-(trifluoromethyl)- 224162-40-7P, 2,4(1H,3H)-Pyrimidinedione, 3-(4-chloro-6-fluoro-3-methoxy-2-nitrophenyl)-1-methyl-6-(trifluoromethyl)- 224162-41-8P, 2,4(1H,3H)-Pyrimidinedione, 3-(4-bromo-6-fluoro-3-methoxy-2-nitrophenyl)-1-methyl-6-(trifluoromethyl)- 224162-42-9P, 2,4(1H,3H)-Pyrimidinedione, 3-(2-amino-4-bromo-6-fluoro-3-methoxyphenyl)-1-methyl-6-(trifluoromethyl)- 224162-43-0P, 2,4(1H,3H)-Pyrimidinedione, 3-(4-chloro-6-fluoro-3-methoxy-2-nitrophenyl)-1-methyl-5-nitro-6-(trifluoromethyl)- 224162-44-1P, 2,4(1H,3H)-Pyrimidinedione, 5-amino-3-(2-amino-4-chloro-6-fluoro-3-methoxyphenyl)-1-methyl-6-(trifluoromethyl)- 224162-45-2P, 2,4(1H,3H)-Pyrimidinedione, 3-[4-chloro-2-(dimethylamino)-6-fluoro-3-methoxyphenyl]-1-methyl-6-(trifluoromethyl)- 224162-46-3P, 2,4(1H,3H)-Pyrimidinedione, 1-amino-3-(4-chloro-6-fluoro-3-methoxy-2-nitrophenyl)-6-(trifluoromethyl)- 224162-47-4P, 2,4(1H,3H)-Pyrimidinedione, 1-amino-3-(2-amino-4-chloro-6-fluoro-3-methoxyphenyl)-6-(trifluoromethyl)- 224162-48-5P, 2,4(1H,3H)-Pyrimidinedione, 3-(4-chloro-6-fluoro-3-methoxy-2-nitrophenyl)-1-ethyl-6-(trifluoromethyl)- 224162-49-6P, 2,4(1H,3H)-Pyrimidinedione, 3-(2-amino-4-chloro-6-fluoro-3-methoxyphenyl)-1-ethyl-6-(trifluoromethyl)- 224162-50-9P, Acetonitrile, [2-amino-6-chloro-3-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-4-fluorophenoxy]- 224162-51-0P, 2,4(1H,3H)-Pyrimidinedione, 3-[2-amino-4-chloro-6-fluoro-3-(2-propynyloxy)phenyl]-1-methyl-6-(trifluoromethyl)- 224162-52-1P, 2-Butenoic acid, 4-[2-amino-6-chloro-3-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-4-fluorophenoxy]-, methyl ester, (2E)- 224162-53-2P, 2,4(1H,3H)-Pyrimidinedione, 3-[2-amino-4-chloro-3-(cyclopentyloxy)-6-fluorophenyl]-1-methyl-6-(trifluoromethyl)- 224162-54-3P, 2,4(1H,3H)-Pyrimidinedione, 3-[2-amino-4-chloro-6-fluoro-3-(phenylmethoxy)phenyl]-1-methyl-6-(trifluoromethyl)- 224162-55-4P, 2,4(1H,3H)-Pyrimidinedione, 3-[2-amino-4-chloro-6-fluoro-3-[(3-nitro-2-pyridinyl)oxy]phenyl]-1-methyl-6-(trifluoromethyl)- 224162-56-5P, Ethanimidoyl chloride, 2,2,2-trichloro-N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]- 224162-57-6P, Methanimidamide, N'-[3-chloro-6-[3,6-dihydro-3-

methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-N,N-dimethyl- 224162-58-7P, 2,4(1H,3H)-Pyrimidinedione, 3-[4-chloro-6-fluoro-3-methoxy-2-(1-pyrrolidinyl)phenyl]-1-methyl-6-(trifluoromethyl)- 224162-59-8P, Carbamic acid, [6-chloro-3-[3,6-dihydro-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-4-fluoro-2-nitrophenyl]-, ethyl ester 224162-60-1P, Carbamic acid, [6-chloro-3-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-4-fluoro-2-nitrophenyl]-, ethyl ester 224162-63-4P, 2,4(1H,3H)-Pyrimidinedione, 3-[2-amino-4-chloro-3-(difluoromethoxy)-6-fluorophenyl]-1-methyl-6-(trifluoromethyl)- 224162-64-5P, 2,4(1H,3H)-Pyrimidinedione, 3-(2-azido-4-chloro-6-fluoro-3-methoxyphenyl)-1-methyl-6-(trifluoromethyl)- 224162-65-6P, 2,4(1H,3H)-Pyrimidinedione, 3-(2-aminophenyl)-1-methyl-6-(trifluoromethyl)- 224162-66-7P, Benzonitrile, 4-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-3-nitro- 224162-67-8P, Benzonitrile, 3-amino-4-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]- 224162-68-9P, 2,4(1H,3H)-Pyrimidinedione, 3-(4,6-dichloro-3-hydroxy-2-nitrophenyl)-1-methyl-6-(trifluoromethyl)- 224162-69-0P, 2,4(1H,3H)-Pyrimidinedione, 3-(2-fluoro-4-methoxy-6-nitrophenyl)-1-methyl-6-(trifluoromethyl)- 224162-70-3P, 2,4(1H,3H)-Pyrimidinedione, 3-(2-amino-4,6-dichloro-3-methoxyphenyl)-1-methyl-6-(trifluoromethyl)- 224162-71-4P, Propanoic acid, 2-[3-amino-4-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]phenoxy]-, ethyl ester 224162-72-5P, Propanoic acid, 2-[4-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-3-nitrophenoxy]-, ethyl ester 224162-73-6P, 2,4(1H,3H)-Pyrimidinedione, 3-[4-(difluoromethoxy)-2-fluoro-6-nitrophenyl]-1-methyl-6-(trifluoromethyl)- 224162-74-7P, 2,4(1H,3H)-Pyrimidinedione, 3-[2-amino-4-(difluoromethoxy)-6-fluorophenyl]-1-methyl-6-(trifluoromethyl)- 224162-76-9P, Alanine, N-[5-(difluoromethoxy)-2-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-3-fluorophenyl]-, ethyl ester 224162-77-0P, Alanine, N-[5-chloro-2-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-3-fluorophenyl]-, ethyl ester 224162-78-1P, Alanine, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-, ethyl ester 224162-79-2P, 2,4(1H,3H)-Pyrimidinedione, 1-amino-3-(2-amino-4-chloro-6-fluoro-3-hydroxyphenyl)-6-(trifluoromethyl)- 224162-80-5P, Acetonitrile, [2-amino-3-[3-amino-3,6-dihydro-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-6-chloro-4-fluorophenoxy]- 224162-81-6P, Acetic acid, [2-amino-3-[3-amino-3,6-dihydro-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-6-chloro-4-fluorophenoxy]-, methyl ester 224162-82-7P, Acetic acid, [2-amino-6-chloro-3-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-4-fluorophenoxy]-, ethyl ester 224162-83-8P, Propanoic acid, 2-[2-amino-6-chloro-3-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-4-fluorophenoxy]-, ethyl ester 224162-84-9P, 2,4(1H,3H)-Pyrimidinedione, 3-(2-amino-4-chloro-3-ethoxy-6-fluorophenyl)-1-methyl-6-(trifluoromethyl)- 224162-85-0P, 2,4(1H,3H)-Pyrimidinedione, 3-[4-chloro-3-ethoxy-2-(ethylamino)-6-fluorophenyl]-1-methyl-6-(trifluoromethyl)- 224162-86-1P, 2,4(1H,3H)-Pyrimidinedione, 3-[2-amino-4-chloro-6-fluoro-3-(1-methylethoxy)phenyl]-1-methyl-6-(trifluoromethyl)- 224162-87-2P, 2,4(1H,3H)-Pyrimidinedione, 3-[4-chloro-6-fluoro-3-(1-methylethoxy)-2-[(1-methylethyl)amino]phenyl]-1-methyl-6-(trifluoromethyl)- 224162-88-3P, 2,4(1H,3H)-Pyrimidinedione, 3-(4-chloro-2-nitrophenyl)-5-nitro-6-(trifluoromethyl)- 224162-89-4P, 2,4(1H,3H)-Pyrimidinedione, 3-(4-chloro-3-hydroxy-2-nitrophenyl)-1-methyl-6-(trifluoromethyl)- 224162-90-7P, 2,4(1H,3H)-Pyrimidinedione, 3-(4-chloro-3-hydroxy-2,6-dinitrophenyl)-1-methyl-6-(trifluoromethyl)- 224162-91-8P, 2,4(1H,3H)-Pyrimidinedione, 1-methyl-3-[2-nitro-4-(trifluoromethoxy)phenyl]-6-(trifluoromethyl)- 224162-92-9P, 2,4(1H,3H)-Pyrimidinedione, 3-(4-chloro-3-methoxy-2,6-dinitrophenyl)-6-(trifluoromethyl)- 224162-93-0P, 2,4(1H,3H)-Pyrimidinedione, 3-(4-chloro-3,6-difluoro-2-nitrophenyl)-6-(trifluoromethyl)- 224162-94-1P, 2,4(1H,3H)-Pyrimidinedione, 3-(2-amino-4-chloro-3-

hydroxyphenyl)-1-methyl-6-(trifluoromethyl)- 224162-96-3P,
2,4(1H,3H)-Pyrimidinedione, 3-(2-amino-4-chloro-3-methoxyphenyl)-1-methyl-
6-(trifluoromethyl)- 224162-97-4P, 2,4(1H,3H)-Pyrimidinedione,
3-[2-amino-4-(trifluoromethoxy)phenyl]-1-methyl-6-(trifluoromethyl)-
224162-98-5P, Acetamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-
(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-
224162-99-6P, Acetamide, N-acetyl-N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-
dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-
224163-00-2P, Propanamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-
(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-2,2-
dimethyl- 224163-01-3P, 2-Propenamide, N-[3-chloro-6-[3,6-dihydro-3-
methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-
methoxyphenyl]-N-(1-oxo-2-propenyl)- 224163-02-4P, 2-Propenamide,
N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
pyrimidinyl]-5-fluoro-2-methoxyphenyl]-2-methyl- 224163-03-5P,
2-Propenamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-
(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-2-methyl-N-
(2-methyl-1-oxo-2-propenyl)- 224163-04-6P, 2-Butenamide,
N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
pyrimidinyl]-5-fluoro-2-methoxyphenyl]-3-methyl- 224163-05-7P,
2-Butenamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-
(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-3-methyl-N-
(3-methyl-1-oxo-2-butenyl)- 224163-07-9P, Acetamide,
N-[3-chloro-6-[3,6-dihydro-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
pyrimidinyl]-5-fluoro-2-methoxyphenyl]-2,2,2-trifluoro- 224163-08-0P,
Acetamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-
(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-2,2,2-
trifluoro- 224163-09-1P, Acetamide, N-[3-chloro-2-(cyanomethoxy)-6-[3,6-
dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-
fluorophenyl]-2,2,2-trifluoro- 224163-10-4P, Acetamide,
N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-5-[(trifluoroacetyl)amino]-4-
(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-2,2,2-
trifluoro- 224163-12-6P, Acetamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-
2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-
2-cyano- 224163-13-7P, Acetic acid, [[3-chloro-6-[3,6-dihydro-3-methyl-
2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-
methoxyphenyl]amino]oxo-, methyl ester 224163-14-8P, Propanedioic acid,
6-chloro-3-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
pyrimidinyl]-2-[(3-ethoxy-1,3-dioxopropyl)amino]-4-fluorophenyl ethyl
ester 224163-15-9P, Cyclopropanecarboxamide, N-[3-chloro-6-[3,6-dihydro-
3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-
methoxyphenyl]- 224163-16-0P, Cyclopropanecarboxamide,
N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
pyrimidinyl]-5-fluoro-2-methoxyphenyl]-N-(cyclopropylcarbonyl)-
224163-17-1P, Cyclohexanecarboxamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-
2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-
224163-19-3P, Cyclohexanecarboxamide, N-[3-chloro-6-[3,6-dihydro-3-
methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-
methoxyphenyl]-N-(cyclohexylcarbonyl)- 224163-20-6P, Methanesulfonamide,
N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
pyrimidinyl]-5-fluoro-2-methoxyphenyl]-N-(methylsulfonyl)- 224163-21-7P,
Benzamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-
(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-
224163-22-8P, Benzamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-
(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-3-methyl-
224163-23-9P, Benzamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-
(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-4-methyl-
224163-24-0P, Benzamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-
(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-4-methyl-N-
(4-methylbenzoyl)- 224163-25-1P, Benzenesulfonamide,
N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
pyrimidinyl]-5-fluoro-2-methoxyphenyl]-4-methyl- 224163-26-2P,
Benzamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-

(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-4-ethyl-
224163-27-3P, Benzamide, N-[3-chloro-2-(cyanomethoxy)-6-[3,6-dihydro-3-
methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluorophenyl]-4-
ethyl- 224163-29-5P, Benzamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-
dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-4-
propyl-N-(4-propylbenzoyl)- 224163-30-8P, Benzamide,
N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
pyrimidinyl]-5-fluoro-2-methoxyphenyl]-4-(1,1-dimethylethyl)-
224163-31-9P, Benzamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-
(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-4-ethenyl-
224163-32-0P, Benzamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-
(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-3,4-
dimethyl- 224163-33-1P, Benzamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-
2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-
4-(trifluoromethyl)- 224163-34-2P, Benzamide, N-[3-chloro-6-[3,6-dihydro-
3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-
methoxyphenyl]-4-(trifluoromethyl)-N-[4-(trifluoromethyl)benzoyl]-
224163-35-3P, Benzamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-
(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-4-
(chloromethyl)- 224163-36-4P, [1,1'-Biphenyl]-4-carboxamide,
N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
pyrimidinyl]-5-fluoro-2-methoxyphenyl]- 224163-37-5P,
[1,1'-Biphenyl]-4-carboxamide, N-([1,1'-biphenyl]-4-ylcarbonyl)-N-[3-
chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
pyrimidinyl]-5-fluoro-2-methoxyphenyl]- 224163-39-7P, Benzamide,
N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
pyrimidinyl]-5-fluoro-2-methoxyphenyl]-2-fluoro- 224163-40-0P,
Benzamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-
(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-4-fluoro-
224163-41-1P, Benzamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-
(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-2,3-
dimethyl- 224163-42-2P, Benzamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-
2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-
2,4-difluoro- 224163-43-3P, Benzamide, N-[3-chloro-6-[3,6-dihydro-3-
methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-
methoxyphenyl]-N-(2,4-difluorobenzoyl)-2,4-difluoro- 224163-44-4P,
Benzamide, N-[2-[3-amino-3,6-dihydro-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
pyrimidinyl]-5-chloro-3-fluoro-6-methoxyphenyl]-2,4-difluoro-
224163-45-5P, Benzamide, N-[3-chloro-2-(cyanomethoxy)-6-[3,6-dihydro-3-
methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluorophenyl]-N-
(2,4-difluorobenzoyl)-2,4-difluoro- 224163-47-7P, Benzenecarbothioamide,
N-[3-chloro-6-[3,6-dihydro-3-methyl-2-oxo-6-thioxo-4-(trifluoromethyl)-
1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-2,4-difluoro- 224163-48-8P,
Benzamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-
(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-2,6-
difluoro- 224163-49-9P, Benzamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-
2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-
3,4-difluoro- 224163-50-2P, Benzamide, N-[3-chloro-6-[3,6-dihydro-3-
methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-
methoxyphenyl]-N-(3,4-difluorobenzoyl)-3,4-difluoro- 224163-51-3P,
Benzamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-
(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-3,5-
difluoro- 224163-52-4P, Benzamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-
2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-
N-(3,5-difluorobenzoyl)-3,5-difluoro- 224163-53-5P, Benzamide,
2-chloro-N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-
1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]- 224163-55-7P, Benzamide,
3-chloro-N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-
1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]- 224163-56-8P, Benzamide,
3-chloro-N-(3-chlorobenzoyl)-N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-
4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-
224163-57-9P, Benzamide, 4-chloro-N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-
dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-

224163-58-0P, Benzamide, 4-chloro-N-(4-chlorobenzoyl)-N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]- 224163-59-1P, Benzamide, 2,4-dichloro-N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]- 224163-60-4P, Benzamide, 3,4-dichloro-N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]- 224163-61-5P, Benzamide, 3-bromo-N-(3-bromobenzoyl)-N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]- 224163-62-6P, Benzamide, 4-bromo-N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]- 224163-63-7P, Benzamide, 4-bromo-N-(4-bromobenzoyl)-N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]- 224163-65-9P, Benzamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-4-methoxy- 224163-66-0P, Benzamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-4-ethoxy- 224163-67-1P, Benzamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-4-iodo- 224163-68-2P, Benzamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-4-cyano- 224163-69-3P, Benzamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-4-nitro-N-(4-nitrobenzoyl)- 224163-70-6P, Benzamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-3,5-dinitro- 224163-71-7P, Benzamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-4-(trifluoromethoxy)-N-[4-(trifluoromethoxy)benzoyl]- 224163-72-8P, Benzamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-4-(trifluoromethoxy)- 224163-74-0P, 1-Piperidinecarboxamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]- 224163-75-1P, 1-Naphthalenecarboxamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]- 224163-77-3P, 2-Naphthalenecarboxamide, N-[3-chloro-6-[3,6-dihydro-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]- 224163-78-4P, 2-Naphthalenecarboxamide, N-[2-[3-amino-3,6-dihydro-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-chloro-3-fluoro-6-methoxyphenyl]- 224163-79-5P, 2-Propenamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-3-phenyl-, (2E)- 224163-80-8P, 2-Propenamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-3-(2,4-difluorophenyl)-, (2E)- 224163-81-9P, 2-Propenamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-3-(2-methylphenyl)-, (2E)- 224163-82-0P, 2-Propenamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-2-methyl-3-phenyl- 224163-84-2P, 2-Propenamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-3-(2-chlorophenyl)-, (2E)- 224163-85-3P, 2-Propenamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-3-(2-chlorophenyl)-N-[(2E)-3-(2-chlorophenyl)-1-oxo-2-propenyl]-, (2E)- 224163-86-4P, 2-Propenamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-3-(4-chlorophenyl)-, (2E)- 224163-87-5P, 2-Propenamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-3-(4-methoxyphenyl)-, (2E)- 224163-88-6P, Benzenepropanamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]- 224163-89-7P, Benzenepropanamide, N-[3-chloro-2-(cyanomethoxy)-6-[3,6-

dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluorophenyl]- 224163-90-0P, Benzenebutanamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]- 224163-91-1P, Acetamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-2-(phenylmethoxy)- 224163-92-2P, 2-Furancarboxamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]- 224163-93-3P, 2-Furancarboxamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-3-methyl- 224163-94-4P, 2-Propenamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-3-(2-furanyl)-, (2E)- 224163-96-6P, 2-Thiopheneacetamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]- 224163-97-7P, 2-Thiophenecarboxamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-hydroxyphenyl]-3-methyl- 224163-98-8P, 2-Thiophenecarboxamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-5-methyl- 224163-99-9P, 2-Thiophenecarboxamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-5-methyl-N-[(5-methyl-2-thienyl)carbonyl]- 224164-00-5P, 2-Thiophenecarboxamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-N-(2-thienylcarbonyl)- 224164-01-6P, 3-Pyridinecarboxamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]- 224164-02-7P, 3-Pyridinecarboxamide, 6-chloro-N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-N-[(6-chloro-3-pyridinyl)carbonyl]- 224164-03-8P, 2-Pyridinecarboxamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-hydroxyphenyl]-3-nitro- 224164-04-9P, 2-Pyrimidinecarboxamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-hydroxyphenyl]- 224164-05-0P, Benzo[b]thiophene-2-carboxamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]- 224164-06-1P, 2-Quinolinecarboxamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]- 224164-07-2P, 2-Quinoxalinecarboxamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]- 224164-08-3P, Benzamide, N-[3-bromo-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-2,4-difluoro- 224164-09-4P, 2-Propenamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-3-(2-thienyl)- 224164-11-8P, 2-Naphthalenecarboxamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-hydroxyphenyl]- 224164-12-9P, 2-Naphthalenecarboxamide, N-[3-chloro-2-(difluoromethoxy)-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluorophenyl]- 224164-13-0P, Acetamide, 2-(acetyloxy)-N-[(acetyloxy)acetyl]-N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]- 224164-14-1P, Acetamide, 2-(acetyloxy)-N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]- 224164-15-2P, Acetic acid, [[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]amino]oxo-, ethyl ester 224164-16-3P, Acetamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-2-phenoxy- 224164-17-4P, Acetamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-2-phenoxy-N-(phenoxyacetyl)- 224164-18-5P, Benzeneacetamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-

2-methoxyphenyl]-.alpha.-oxo- 224164-20-9P, 2-Naphthalenecarboxamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methylphenyl]- 224164-21-0P, 2-Propenamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methylphenyl]-3-phenyl-, (2E)- 224164-22-1P, Benzamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-2,6-dimethyl- 224164-23-2P, 2-Propenamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-3-(2-fluorophenyl)-, (2E)- 224164-24-3P, 2-Propenamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-3-(2-nitrophenyl)-, (2E)- 224164-25-4P, 2-Propenamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-3-(2-methoxyphenyl)-, (2E)- 224164-26-5P, 2-Propenamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-3-(2,6-dichlorophenyl)-, (2E)- 224164-27-6P, Benzenepropanamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-2-methyl- 224164-29-8P, Benzenepropanamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-2,5-dimethyl- 224164-30-1P, 2-Naphthalenecarboxamide, N-[5-chloro-2-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]phenyl]- 224164-31-2P, Acetamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-2-(4-fluorophenoxy)- 224164-32-3P, 2-Propenamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-3-(3-chlorophenyl)-, (2E)- 224164-33-4P, Acetamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-2-(4-chlorophenoxy)- 224164-34-5P, 2-Propenamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-2-cyano-3-phenyl- 224164-35-6P, 2-Propenamide, N-[5-chloro-2-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]phenyl]-3-phenyl-, (2E)- 224164-37-8P, 2-Naphthalenecarboxamide, N-[2-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]phenyl]-N-(2-naphthalenylcarbonyl)- 224164-38-9P, 2-Naphthalenecarboxamide, N-[5-cyano-2-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]phenyl]- 224164-39-0P, 2-Propenamide, N-[5-cyano-2-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]phenyl]-3-phenyl-, (2E)- 224164-40-3P, 2-Naphthalenecarboxamide, N-[2-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]phenyl]- 224164-41-4P, 2-Naphthalenecarboxamide, N-[2-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-methoxyphenyl]- 224164-42-5P, 2-Naphthalenecarboxamide, N-[3,5-dichloro-2-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-6-methoxyphenyl]- 224164-43-6P, 2-Naphthalenecarboxamide, N-[5-chloro-2-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-3-fluorophenyl]- 224164-44-7P, Propanoic acid, 2-[4-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-3-[(2-naphthalenylcarbonyl)amino]phenoxy]-, ethyl ester 224164-45-8P, 2,4(1H,3H)-Pyrimidinedione, 3-[4-chloro-2-(cyclopropylamino)-6-fluorophenyl]-1-methyl-6-(trifluoromethyl)- 224164-46-9P, 2-Naphthalenecarboxamide, N-[5-(difluoromethoxy)-2-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-3-fluorophenyl]- 224164-47-0P, 2-Naphthalenecarboxamide, N-[2-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-(trifluoromethyl)phenyl]- 224164-48-1P, Benzeneacetamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-hydroxyphenyl]-

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of heterocyclylbenzenes as herbicides and defoliants)

IT 224164-49-2P, Benzeneacetamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-224164-50-5P, 2-Naphthalenecarboxamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-3-methoxy- 224164-51-6P, 2-Naphthalenecarboxamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-1-methoxy- 224164-52-7P, Acetamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-2-(2,4-dichlorophenoxy)- 224164-53-8P, 2-Naphthalenecarboxamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-3-methyl- 224164-55-0P, 2-Naphthalenecarboxamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-6-methyl- 224164-56-1P, 2-Naphthalenecarboxamide, 3-chloro-N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]- 224164-57-2P, 2-Naphthalenecarboxamide, 5-bromo-N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]- 224164-58-3P, 2-Naphthalenecarboxamide, 4-bromo-N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]- 224164-59-4P, 2-Naphthalenecarboxamide, 4-bromo-N-[(4-bromo-2-naphthalenyl)carbonyl]-N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]- 224164-60-7P, 2-Naphthalenecarboxamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-8-fluoro- 224164-61-8P, 2-Naphthalenecarboxamide, 5-chloro-N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]- 224164-62-9P, 2-Naphthalenecarboxamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-5-cyano- 224164-64-1P, Acetamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-2-[(phenylmethyl)thio]- 224164-65-2P, Acetamide, 2-bromo-N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]- 224164-66-3P, Acetamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-2-(phenylthio)- 224164-67-4P, Acetamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-2-(methylthio)- 224164-68-5P, Acetamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-2-(2-naphthalenylthio)- 224164-69-6P, Acetic acid, [[2-[[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]amino]-2-oxoethyl]thio]-, ethyl ester 224164-70-9P, Propanoic acid, 3-[[2-[[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]amino]-2-oxoethyl]thio]-, ethyl ester 224164-72-1P, Acetamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-2-(ethylthio)- 224164-73-2P, Acetamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-2-[(1-methylethyl)thio]- 224164-74-3P, Acetamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-2-(propylthio)- 224164-75-4P, 2-Propenamide, N-[3-bromo-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-3-phenyl-, (2E)- 224164-76-5P, 2-Propenamide, N-[3-bromo-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-N-[(2E)-1-oxo-3-phenyl-2-propenyl]-3-phenyl-, (2E)- 224164-77-6P, 2-Propenamide, N-[3-bromo-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-3-phenyl-, (2Z)- 224164-79-8P, 2-Propenamide, N-[3-bromo-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-

(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-N-(1-oxo-3-phenyl-2-propenyl)-3-phenyl- 224164-80-1P, 2-Propenamide, N-[3-cyano-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-3-phenyl-, (2E)- 224164-81-2P, 2-Naphthalenecarboxamide, N-[3-cyano-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]- 224164-82-3P, Benzamide, N-[3-bromo-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-4-ethenyl- 224164-83-4P, Benzamide, N-[3-bromo-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-4-ethenyl-N-(4-ethenylbenzoyl)- 224164-84-5P, 2-Propenamide, N-[2-[3-amino-3,6-dihydro-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-chloro-3-fluoro-6-methoxyphenyl]-3-phenyl-, (2E)- 224164-85-6P, 2-Propenamide, N-[2-[3-amino-3,6-dihydro-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-chloro-3-fluoro-6-methoxyphenyl]-N-[(2E)-1-oxo-3-phenyl-2-propenyl]-3-phenyl-, (2E)- 224164-86-7P, Acetamide, N-[2-[3-amino-3,6-dihydro-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-chloro-3-fluoro-6-methoxyphenyl]-2-(phenylmethoxy)- 224164-88-9P, 2-Naphthalenecarboxamide, N-[2-[3-amino-3,6-dihydro-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-chloro-6-(cyanomethoxy)-3-fluorophenyl]- 224164-89-0P, Acetic acid, [6-chloro-3-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-4-fluoro-2-[(2-naphthalenylcarbonyl)amino]phenoxy]-, ethylester 224164-90-3P, Acetic acid, [6-chloro-3-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-4-fluoro-2-[(2E)-1-oxo-3-phenyl-2-propenyl]amino]phenoxy]-, ethyl ester 224164-91-4P, Propanoic acid, 2-[6-chloro-3-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-4-fluoro-2-[(2-naphthalenylcarbonyl)amino]phenoxy]-, ethyl ester 224164-92-5P, 2-Naphthalenecarboxamide, N-[2-[3-amino-3,6-dihydro-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-chloro-3-fluoro-6-hydroxyphenyl]- 224164-93-6P, 2-Naphthalenecarboxamide, N-[2-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-[[4-(trifluoromethyl)-2-pyridinyl]oxy]phenyl]- 224164-94-7P, 2-Naphthalenecarboxamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-(2-propynyloxy)phenyl]- 224164-95-8P, 2-Naphthalenecarboxamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-2-ethoxy-5-fluorophenyl]- 224164-97-0P, 2-Naphthalenecarboxamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-(1-methylethoxy)phenyl]- 224164-98-1P, Hexanamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]- 224164-99-2P, 2-Naphthalenecarboxamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-[(3-nitro-2-pyridinyl)oxy]phenyl]- 224165-00-8P, 2-Naphthalenecarboxamide, N-[3-chloro-2-(cyanomethoxy)-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluorophenyl]- 224165-01-9P, 2-Naphthalenecarboxamide, N-[2-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-methylphenyl]- 224165-02-0P, 2-Naphthalenecarboxamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-2-methoxyphenyl]- 224165-03-1P, 2-Naphthalenecarboxamide, N-[2-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-(trifluoromethoxy)phenyl]- 224165-04-2P, 2-Naphthalenecarboxamide, N-[5-(aminothioxomethyl)-2-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]phenyl]- 224165-05-3P, Cyclopropanecarboxamide, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-2-methoxyphenyl]- 224165-07-5P, Benzoic acid, 4-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-3-[(2-naphthalenylcarbonyl)amino]-, methyl ester 224165-08-6P, Imidodicarbonic diamide, 2-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-N,N'-dimethyl- 224165-09-7P, Urea, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-

2-methoxyphenyl]-N'-propyl- 224165-10-0P, Urea, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-N'-(1-methylethyl)- 224165-11-1P, Urea, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-N'-phenyl- 224165-12-2P, Urea, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-N'-(phenylmethyl)- 224165-13-3P, Urea, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-N'-(1-phenylethyl)- 224165-14-4P, Urea, N'-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-N-methyl-N-(phenylmethyl)- 224165-15-5P, Urea, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-N'-[(4-methylphenyl)methyl]- 224165-16-6P, Urea, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-N'-[(2,4-difluorophenyl)methyl]- 224165-18-8P, Urea, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-N'-(2-phenylethyl)- 224165-19-9P, Urea, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-N'-(3-phenylpropyl)- 224165-20-2P, Urea, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-N'-2-naphthalenyl- 224165-21-3P, Urea, N'-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-N-phenyl-N-(phenylmethyl)- 224165-22-4P, Urea, N-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-N'-(diphenylmethyl)- 224165-23-5P, Urea, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]- 224165-24-6P, Carbamic acid, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-, methyl ester 224165-25-7P, Imidodicarbonic acid, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-, dimethyl ester 224165-26-8P, Carbamic acid, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-, phenyl ester 224165-28-0P, Carbamic acid, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-, 2,4-dimethylphenyl ester 224165-29-1P, Carbamic acid, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-, phenylmethyl ester 224165-30-4P, Carbamic acid, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-, (4-fluorophenyl)methyl ester 224165-31-5P, Carbamic acid, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-, 2-naphthalenyl ester 224165-32-6P, Carbamic acid, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-, cyclohexyl ester 224165-33-7P, Carbamothioic acid, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-, S-phenyl ester 224165-34-8P, Carbamic acid, [3-chloro-2-(cyanomethoxy)-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluorophenyl]-, phenylmethyl ester 224165-35-9P, Carbamic acid, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-, (2,6-dichlorophenyl)methyl ester 224165-36-0P, Carbamic acid, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-, 2,4,6-trimethylphenyl ester 224165-38-2P, Carbamic acid, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-, (3,4-dimethylphenyl)methyl ester 224165-39-3P, Carbamic acid, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-, 2-(1,1-dimethylethyl)phenyl ester 224165-40-6P, Carbamic acid, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-

(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-,
 2-naphthalenylmethyl ester 224165-41-7P, Carbamic acid,
 [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
 pyrimidinyl]-5-fluoro-2-methoxyphenyl]-, (2,6-difluorophenyl)methyl ester
 224165-42-8P, Carbamic acid, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-
 (trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-,
 (3,4-difluorophenyl)methyl ester 224165-43-9P, Carbamic acid,
 [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
 pyrimidinyl]-5-fluoro-2-methoxyphenyl]-, (4-ethylphenyl)methyl ester
 224165-44-0P, Carbamic acid, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-
 (trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-,
 (3,4-dichlorophenyl)methyl ester 224165-45-1P, Carbamic acid,
 [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
 pyrimidinyl]-5-fluoro-2-methoxyphenyl]-, [2-(trifluoromethyl)phenyl]methyl
 ester 224165-46-2P, Carbamic acid, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-
 dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-,
 (2-nitrophenyl)methyl ester 224165-47-3P, Carbamic acid,
 [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
 pyrimidinyl]-5-fluoro-2-methoxyphenyl]-, (2-methoxyphenyl)methyl ester
 224165-48-4P, Carbamic acid, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-
 (trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-,
 2-pyridinylmethyl ester 224165-49-5P, Carbamic acid,
 [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
 pyrimidinyl]-5-fluoro-2-methoxyphenyl]-, (3,5-dimethylphenyl)methyl ester
 224165-50-8P, Carbamic acid, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-
 (trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-,
 (2,5-dimethylphenyl)methyl ester 224165-51-9P, Carbamic acid,
 [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
 pyrimidinyl]-5-fluoro-2-methoxyphenyl]-, (2,5-difluorophenyl)methyl ester
 224165-53-1P, Carbamic acid, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-
 (trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-,
 (4-methoxyphenyl)methyl ester 224165-54-2P, Carbamic acid,
 [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
 pyrimidinyl]-5-fluoro-2-methoxyphenyl]-, 1,3-benzodioxol-5-ylmethyl ester
 224165-55-3P, Carbamic acid, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-
 (trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-,
 [4-(1-methylethyl)phenyl]methyl ester 224165-56-4P, Carbamic acid,
 [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
 pyrimidinyl]-5-fluoro-2-methoxyphenyl]-, [4-(trifluoromethyl)phenyl]methyl
 ester 224165-57-5P, Carbamic acid, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-
 dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-,
 (3-fluorophenyl)methyl ester 224165-58-6P, Carbamic acid,
 [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
 pyrimidinyl]-5-fluoro-2-methoxyphenyl]-, [4-(trifluoromethoxy)phenyl]methy
 l ester 224165-59-7P, Carbamic acid, [3-chloro-6-[3,6-dihydro-3-methyl-
 2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-,
 cyclopropylphenylmethyl ester 224165-60-0P, Carbamic acid,
 [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
 pyrimidinyl]-5-fluoro-2-methoxyphenyl]-, 1-phenylethyl ester
 224165-61-1P, Carbamic acid, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-
 (trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-,
 (pentafluorophenyl)methyl ester 224165-62-2P, Carbamic acid,
 [5-chloro-2-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
 pyrimidinyl]phenyl]-, (2-fluorophenyl)methyl ester 224165-64-4P,
 Carbamic acid, [5-chloro-2-[3,6-dihydro-3-methyl-2,6-dioxo-4-
 (trifluoromethyl)-1(2H)-pyrimidinyl]phenyl]-, phenyl ester 224165-65-5P
 , Carbamic acid, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-
 (trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methylphenyl]-,
 (2-fluorophenyl)methyl ester 224165-66-6P, Carbamic acid,
 [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
 pyrimidinyl]-5-fluoro-2-methylphenyl]-, phenyl ester 224165-67-7P,
 Carbamic acid, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-
 (trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methylphenyl]-,

3,4-dimethylphenyl ester 224165-68-8P, Carbamic acid,
 [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
 pyrimidinyl]-5-fluoro-2-methylphenyl]-, (2-chlorophenyl)methyl ester
 224165-69-9P, Carbamic acid, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-
 (trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methylphenyl]-,
 2,6-dimethylphenyl ester 224165-70-2P, Carbamic acid,
 [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
 pyrimidinyl]-5-fluoro-2-methylphenyl]-, (2-methylphenyl)methyl ester
 224165-71-3P, Carbamic acid, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-
 (trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methylphenyl]-,
 2-phenylethyl ester 224165-72-4P, Carbamic acid, [3-chloro-6-[3,6-
 dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-
 2-methylphenyl]-, (2-methoxyphenyl)methyl ester 224165-73-5P, Carbamic
 acid, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-
 1(2H)-pyrimidinyl]-5-fluoro-2-methylphenyl]-, 2,6-dimethoxyphenyl ester
 224165-74-6P, Carbamic acid, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-
 (trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methylphenyl]-,
 (4-methylphenyl)methyl ester 224165-75-7P, Carbamic acid,
 [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
 pyrimidinyl]-5-fluoro-2-methylphenyl]-, (4-chlorophenyl)methyl ester
 224165-77-9P, Carbamic acid, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-
 (trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methylphenyl]-,
 (2,4-dichlorophenyl)methyl ester 224165-78-0P, Carbamic acid,
 [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
 pyrimidinyl]-5-fluoro-2-methylphenyl]-, (3,4-dimethoxyphenyl)methyl ester
 224165-79-1P, Carbamic acid, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-
 (trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methylphenyl]-,
 (4-nitrophenyl)methyl ester 224165-80-4P, Carbamic acid,
 [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
 pyrimidinyl]-5-fluoro-2-methylphenyl]-, (3-methoxyphenyl)methyl ester
 224165-82-6P, Carbamothioic acid, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-
 dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methylphenyl]-,
 S-(phenylmethyl) ester 224165-84-8P, Carbamic acid, [3-chloro-6-[3,6-
 dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-
 2-methylphenyl]-, (3-nitrophenyl)methyl ester 224165-86-0P, Carbamic
 acid, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-
 1(2H)-pyrimidinyl]-5-fluoro-2-methylphenyl]-, (3-methylphenyl)methyl ester
 224165-87-1P, Carbamic acid, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-
 (trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methylphenyl]-,
 (2,4,6-trimethylphenyl)methyl ester 224165-88-2P, Carbamic acid,
 [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
 pyrimidinyl]-5-fluoro-2-methylphenyl]-, 2-furanylmethyl ester
 224165-89-3P, 5H-Tetrazol-5-one, 1-(4-chloro-6-fluoro-3-methoxy-2-
 nitrophenyl)-1,2-dihydro- 224165-90-6P, 5H-Tetrazol-5-one,
 1-(4-chloro-6-fluoro-3-hydroxy-2-nitrophenyl)-1,2-dihydro- 224165-91-7P,
 5H-Tetrazol-5-one, 1-(2-amino-4-chloro-6-fluoro-3-methoxyphenyl)-4-(3-
 fluoropropyl)-1,4-dihydro- 224165-92-8P, 5H-Tetrazol-5-one,
 1-(4-chloro-6-fluoro-3-hydroxy-2-nitrophenyl)-4-(3-fluoropropyl)-1,4-
 dihydro- 224165-93-9P, 5H-Tetrazol-5-one, 1-(2-amino-4-chloro-6-fluoro-3-
 hydroxyphenyl)-4-(3-fluoropropyl)-1,4-dihydro- 224165-95-1P,
 5H-Tetrazol-5-one, 1-(4,6-dichloro-3-methoxy-2-nitrophenyl)-1,2-dihydro-
 224165-96-2P, 5H-Tetrazol-5-one, 1-(4,6-dichloro-3-methoxy-2-nitrophenyl)-
 4-(3-fluoropropyl)-1,4-dihydro- 224165-97-3P, 5H-Tetrazol-5-one,
 1-(4,6-dichloro-3-hydroxy-2-nitrophenyl)-4-(3-fluoropropyl)-1,4-dihydro-
 224165-98-4P, 5H-Tetrazol-5-one, 1-(2-amino-4,6-dichloro-3-hydroxyphenyl)-
 4-(3-fluoropropyl)-1,4-dihydro- 224165-99-5P, 5H-Tetrazol-5-one,
 1-[2-amino-4,6-dichloro-3-(2-propynyloxy)phenyl]-4-(3-fluoropropyl)-1,4-
 dihydro- 224166-00-1P, 5H-Tetrazol-5-one, 1-[2-amino-4,6-dichloro-3-(1-
 methylethoxy)phenyl]-4-(3-fluoropropyl)-1,4-dihydro- 224166-01-2P,
 5H-Tetrazol-5-one, 1-[2-amino-4-chloro-6-fluoro-3-(2-propynyloxy)phenyl]-4-
 (3-fluoropropyl)-1,4-dihydro- 224166-02-3P, 5H-Tetrazol-5-one,
 1-[2-amino-4-chloro-6-fluoro-3-(1-methylethoxy)phenyl]-4-(3-fluoropropyl)-
 1,4-dihydro- 224166-03-4P, 2-Naphthalenecarboxamide,

N-[3-chloro-5-fluoro-6-[4-(3-fluoropropyl)-4,5-dihydro-5-oxo-1H-tetrazol-1-yl]-2-methoxyphenyl]- 224166-04-5P, 2-Naphthalenecarboxamide,
N-[3-chloro-5-fluoro-6-[4-(3-fluoropropyl)-4,5-dihydro-5-oxo-1H-tetrazol-1-yl]-2-methoxyphenyl]-N-(2-naphthalenylcarbonyl)- 224166-05-6P,
Acetamide, N-[3-chloro-5-fluoro-6-[4-(3-fluoropropyl)-4,5-dihydro-5-oxo-1H-tetrazol-1-yl]-2-methoxyphenyl]-2-(phenylmethoxy)- 224166-07-8P,
3H-1,2,4-Triazol-3-one, 2-(4-chloro-6-fluoro-3-hydroxy-2-nitrophenyl)-4-(difluoromethyl)-2,4-dihydro-5-methyl- 224166-08-9P,
3H-1,2,4-Triazol-3-one, 2-(2-amino-4-chloro-6-fluoro-3-hydroxyphenyl)-4-(difluoromethyl)-2,4-dihydro-5-methyl- 224166-09-0P, Benzamide,
N-[3,5-dichloro-2-[4-(difluoromethyl)-4,5-dihydro-3-methyl-5-oxo-1H-1,2,4-triazol-1-yl]phenyl]-2,4-difluoro- 224166-10-3P, Benzamide,
N-[3-chloro-6-[4-(difluoromethyl)-4,5-dihydro-3-methyl-5-oxo-1H-1,2,4-triazol-1-yl]-5-fluoro-2-methoxyphenyl]-2,4-difluoro- 224166-11-4P,
2-Naphthalenecarboxamide, N-[3-chloro-6-[4-(difluoromethyl)-4,5-dihydro-3-methyl-5-oxo-1H-1,2,4-triazol-1-yl]-5-fluoro-2-methoxyphenyl]- 224166-12-5P, 2-Naphthalenecarboxamide, N-[3,5-dichloro-2-[4-(difluoromethyl)-4,5-dihydro-3-methyl-5-oxo-1H-1,2,4-triazol-1-yl]phenyl]- 224166-13-6P, 2-Naphthalenecarboxamide, N-[3,5-dichloro-2-[4-(difluoromethyl)-4,5-dihydro-3-methyl-5-oxo-1H-1,2,4-triazol-1-yl]-6-methoxyphenyl]- 224166-14-7P, Propanamide, N-[4,6-dichloro-3-[4-(difluoromethyl)-4,5-dihydro-3-methyl-5-oxo-1H-1,2,4-triazol-1-yl]-2-nitrophenyl]- 224166-15-8P, Propanamide, N-[2-amino-4,6-dichloro-3-[4-(difluoromethyl)-4,5-dihydro-3-methyl-5-oxo-1H-1,2,4-triazol-1-yl]phenyl]- 224166-17-0P, 3H-1,2,4-Triazol-3-one, 2-(2,3-diamino-4,6-dichlorophenyl)-4-(difluoromethyl)-2,4-dihydro-5-methyl- 224166-18-1P,
3H-1,2,4-Triazol-3-one, 2-(4-chloro-2-fluoro-6-nitrophenyl)-4-(difluoromethyl)-2,4-dihydro-5-methyl- 224166-19-2P,
3H-1,2,4-Triazol-3-one, 2-(2-amino-4-chloro-6-fluorophenyl)-4-(difluoromethyl)-2,4-dihydro-5-methyl- 224166-20-5P, Benzamide,
N-[5-chloro-2-[4-(difluoromethyl)-4,5-dihydro-3-methyl-5-oxo-1H-1,2,4-triazol-1-yl]-3-fluorophenyl]-2,4-difluoro- 224166-21-6P,
2-Naphthalenecarboxamide, N-[5-chloro-2-[4-(difluoromethyl)-4,5-dihydro-3-methyl-5-oxo-1H-1,2,4-triazol-1-yl]-3-fluorophenyl]- 224166-22-7P,
1H-Pyrazole, 4-chloro-3-(4-chloro-6-fluoro-3-methoxy-2-nitrophenyl)-1-methyl-5-(trifluoromethyl)- 224166-23-8P, Benzenamine,
3-chloro-6-[4-chloro-1-methyl-5-(trifluoromethyl)-1H-pyrazol-3-yl]-5-fluoro-2-methoxy- 224166-24-9P, 2-Naphthalenecarboxamide,
N-[3-chloro-6-[4-chloro-1-methyl-5-(trifluoromethyl)-1H-pyrazol-3-yl]-5-fluoro-2-methoxyphenyl]- 224166-26-1P, 2-Propenamide,
N-[3-chloro-6-[4-chloro-1-methyl-5-(trifluoromethyl)-1H-pyrazol-3-yl]-5-fluoro-2-methoxyphenyl]-3-phenyl-, (2E)- 224166-27-2P,
1H-Isoindole-1,3(2H)-dione, 2-(4-chloro-6-fluoro-3-hydroxy-2-nitrophenyl)-4,5,6,7-tetrahydro- 224166-28-3P, 1H-Isoindole-1,3(2H)-dione,
2-(2-amino-4-chloro-6-fluoro-3-hydroxyphenyl)-4,5,6,7-tetrahydro- 224166-29-4P, 1H-Isoindole-1,3(2H)-dione, 2-(2-amino-4-chloro-6-fluoro-3-(2-propynyloxy)phenyl)-4,5,6,7-tetrahydro- 224166-30-7P,
1H-Isoindole-1,3(2H)-dione, 2-[2-amino-4-chloro-6-fluoro-3-(1-methylethoxy)phenyl]-4,5,6,7-tetrahydro- 224166-31-8P,
1H-Isoindole-1,3(2H)-dione, 2-[2-amino-4-chloro-3-(cyclopentyloxy)-6-fluorophenyl]-4,5,6,7-tetrahydro- 224166-32-9P, 1H-Isoindole-1,3(2H)-dione, 2-(4-chloro-6-fluoro-3-methoxy-2-nitrophenyl)-4,5,6,7-tetrahydro- 224166-33-0P, 1H-Isoindole-1,3(2H)-dione, 2-(2-amino-4-chloro-6-fluoro-3-methoxyphenyl)-4,5,6,7-tetrahydro- 224166-34-1P, Benzamide,
N-[3-chloro-5-fluoro-6-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)-2-methoxyphenyl]-2,4-difluoro- 224166-35-2P, 2-Naphthalenecarboxamide,
N-[3-chloro-5-fluoro-6-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)-2-methoxyphenyl]- 224166-36-3P, Benzamide, N-[3-chloro-5-fluoro-6-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)-2-(2-propynyloxy)phenyl]-2,4-difluoro- 224166-38-5P, Benzamide,
N-[3-chloro-5-fluoro-6-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)-2-(1-methylethoxy)phenyl]-2,4-difluoro- 224166-39-6P, Benzamide,
N-[3-chloro-5-fluoro-6-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)-

2-methoxyphenyl]-4-ethenyl- 224166-40-9P, 2-Propenamide,
 N-[3-chloro-5-fluoro-6-(1,3,4,5,6,7-hexahydro-1,3-dioxo-2H-isoindol-2-yl)-
 2-methoxyphenyl]-3-phenyl-, (2E)- 224166-41-0P, 1H-Isoindole-1,3(2H)-
 dione, 2-(4-chloro-2,6-dinitrophenyl)-4,5,6,7-tetrahydro- 224166-42-1P,
 1H-Isoindole-1,3(2H)-dione, 2-(4-chloro-2-nitrophenyl)-4,5,6,7-tetrahydro-
 224166-43-2P, 1H-Isoindole-1,3(2H)-dione, 2-(2,4-dinitrophenyl)-4,5,6,7-
 tetrahydro- 224166-44-3P, 1H-Isoindole-1,3(2H)-dione,
 2-(2-amino-4-chlorophenyl)-4,5,6,7-tetrahydro- 224166-45-4P,
 2-Naphthalenecarboxamide, N-[5-chloro-2-(1,3,4,5,6,7-hexahydro-1,3-dioxo-
 2H-isoindol-2-yl)phenyl]- 224166-46-5P, 1H-[1,2,4]Triazolo[1,2-
 a]pyridazine-1,3(2H)-dione, 2-(4-chloro-6-fluoro-3-hydroxy-2-
 nitrophenyl)tetrahydro- 224166-48-7P, 1H-[1,2,4]Triazolo[1,2-
 a]pyridazine-1,3(2H)-dione, 2-(4-chloro-6-fluoro-3-methoxy-2-
 nitrophenyl)tetrahydro- 224166-49-8P, 1H-[1,2,4]Triazolo[1,2-
 a]pyridazine-1,3(2H)-dione, 2-(2-amino-4-chloro-6-fluoro-3-
 methoxyphenyl)tetrahydro- 224166-50-1P, 1H-[1,2,4]Triazolo[1,2-
 a]pyridazin-1-one, 2-(4-chloro-2-nitrophenyl)hexahydro-3-thioxo-
 224166-51-2P, 1H-[1,2,4]Triazolo[1,2-a]pyridazin-1-one,
 2-(2-amino-4-chlorophenyl)hexahydro-3-thioxo- 224166-52-3P,
 2-Naphthalenecarboxamide, N-[5-chloro-2-(tetrahydro-1-oxo-3-thioxo-1H-
 [1,2,4]triazolo[1,2-a]pyridazin-2(3H)-yl)phenyl]- 224166-53-4P,
 2-Naphthalenecarboxamide, N-[3-chloro-5-fluoro-2-methoxy-6-(tetrahydro-1,3-
 dioxo-1H-[1,2,4]triazolo[1,2-a]pyridazin-2(3H)-yl)phenyl]- 224166-54-5P,
 Benzamide, N-[3-chloro-5-fluoro-2-methoxy-6-(tetrahydro-1,3-dioxo-1H-
 [1,2,4]triazolo[1,2-a]pyridazin-2(3H)-yl)phenyl]-2,4-difluoro-
 224166-55-6P, 1H-[1,2,4]Triazolo[1,2-a]pyridazine-1,3(2H)-dione,
 2-(4-chloro-2-nitrophenyl)tetrahydro- 224166-56-7P, 1H-
 [1,2,4]Triazolo[1,2-a]pyridazine-1,3(2H)-dione, 2-(2-amino-4-
 chlorophenyl)tetrahydro- 224166-57-8P, 2-Naphthalenecarboxamide,
 N-[5-chloro-2-(tetrahydro-1,3-dioxo-1H-[1,2,4]triazolo[1,2-a]pyridazin-
 2(3H)-yl)phenyl]- 224166-58-9P, 3(2H)-Pyridazinone, 2-(4-chloro-6-fluoro-
 3-methoxy-2-nitrophenyl)-5-(trifluoromethyl)- 224166-59-0P,
 3(2H)-Pyridazinone, 2-(4-chloro-6-fluoro-3-hydroxy-2-nitrophenyl)-5-
 (trifluoromethyl)- 224166-61-4P, 3(2H)-Pyridazinone,
 2-(2-amino-4-chloro-6-fluoro-3-hydroxyphenyl)-5-(trifluoromethyl)-
 224166-63-6P, 3(2H)-Pyridazinone, 2-[4-chloro-6-fluoro-3-methoxy-2-
 (methylamino)phenyl]-5-(trifluoromethyl)- 224166-64-7P,
 2-Naphthalenecarboxamide, N-[3-chloro-5-fluoro-2-methoxy-6-[6-oxo-4-
 (trifluoromethyl)-1(6H)-pyridazinyl]phenyl]- 224166-65-8P,
 3(2H)-Pyridazinone, 2-(2,4-dichloro-6-fluoro-3-methoxyphenyl)-5-
 (trifluoromethyl)- 224166-66-9P, Benzenepropanoic acid,
 .alpha.,3-dichloro-5-fluoro-2-methoxy-6-[6-oxo-4-(trifluoromethyl)-1(6H)-
 pyridazinyl]-, ethyl ester 224166-67-0P, 3(2H)-Pyridazinone,
 2-(4-chloro-6-fluoro-3-hydroxy-2-nitrophenyl)-4-methyl-5-(trifluoromethyl)-
 224166-69-2P, 3(2H)-Pyridazinone, 2-(2-amino-4-chloro-6-fluoro-3-
 hydroxyphenyl)-4-methyl-5-(trifluoromethyl)- 224166-70-5P,
 3(2H)-Pyridazinone, 2-(2-amino-4-chloro-6-fluoro-3-methoxyphenyl)-4-methyl-
 5-(trifluoromethyl)- 224166-71-6P, 3(2H)-Pyridazinone,
 2-[4-chloro-6-fluoro-3-methoxy-2-(methylamino)phenyl]-4-methyl-5-
 (trifluoromethyl)-

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BUU
 (Biological use, unclassified); SPN (Synthetic preparation); BIOL
 (Biological study); PREP (Preparation); USES (Uses)

(prepn. of heterocyclbenzenes as herbicides and defoliants)
 IT 224166-72-7P, 2-Naphthalenecarboxamide, N-[3-chloro-5-fluoro-2-methoxy-6-
 [5-methyl-6-oxo-4-(trifluoromethyl)-1(6H)-pyridazinyl]phenyl]-
 224166-73-8P, Imidazo[1,5-a]pyridin-1(5H)-one, 2-(4-chloro-6-fluoro-3-
 hydroxy-2-nitrophenyl)hexahydro-3-thioxo- 224166-74-9P,
 Imidazo[1,5-a]pyridin-1(5H)-one, 2-(2-amino-4-chloro-6-fluoro-3-
 hydroxyphenyl)hexahydro-3-thioxo- 224166-75-0P, Imidazo[1,5-a]pyridin-
 1(5H)-one, 2-(2-amino-4-chloro-6-fluoro-3-methoxyphenyl)hexahydro-3-thioxo-
 224166-76-1P, 2-Naphthalenecarboxamide, N-[3-chloro-5-fluoro-6-
 (hexahydro-1-oxo-3-thioxoimidazo[1,5-a]pyridin-2(3H)-yl)-2-methoxyphenyl]-

224166-77-2P, Imidazo[1,5-a]pyridine-1,3(2H,5H)-dione, 2-(4-chloro-2-nitrophenyl)tetrahydro- 224166-78-3P, Imidazo[1,5-a]pyridine-1,3(2H,5H)-dione, 2-(2-amino-4-chlorophenyl)tetrahydro- 224166-79-4P, 2-Naphthalenecarboxamide, N-[5-chloro-2-(hexahydro-1,3-dioxoimidazo[1,5-a]pyridin-2(3H)-yl)phenyl]- 224166-81-8P, 1H-Isoindole-1,3(2H)-dione, 2-(2-amino-4-chloro-6-fluoro-3-hydroxyphenyl)- 224166-82-9P, 2-Naphthalenecarboxamide, N-[3-chloro-6-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-5-fluoro-2-methoxyphenyl]- 224166-84-1P, Benzamide, N-[3-chloro-6-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)-5-fluoro-2-methoxyphenyl]-2,4-difluoro- 224166-85-2P, 2-Naphthalenecarboxamide, N-[5-chloro-2-(1,3-dihydro-1,3-dioxo-2H-isoindol-2-yl)phenyl]- 224166-86-3P, Benzenepropanoic acid, 3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-, ethyl ester 224166-87-4P, 2-Propenoic acid, 3-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-, ethyl ester, (2E)- 224166-88-5P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-, methyl ester 224166-89-6P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-, ethyl ester, (+)- 224166-90-9P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-, ethyl ester, (-)- 224166-91-0P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-, propyl ester, (+)- 224166-92-1P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-, propyl ester, (-)- 224166-94-3P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-, butyl ester, (+)- 224166-95-4P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-, butyl ester, (-)- 224166-96-5P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-, pentyl ester, (+)- 224166-97-6P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-, pentyl ester, (-)- 224166-98-7P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-, hexyl ester, (+)- 224166-99-8P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-, hexyl ester, (-)- 224167-00-4P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-, 2-methylpropyl ester, (+)- 224167-01-5P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-, 2-methylpropyl ester, (-)- 224167-02-6P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-, 3-methylbutyl ester, (+)- 224167-03-7P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-, 3-methylbutyl ester, (-)- 224167-04-8P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-, 1,1-dimethylethyl ester 224167-05-9P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-, 2-propynyl ester, (+)- 224167-07-1P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-, 2-propynyl ester, (-)- 224167-08-2P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-, 2,2,2-trifluoroethyl ester 224167-09-3P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-

methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-, 2,2,3,3-tetrafluoropropyl ester 224167-10-6P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-, 2,2,3,3,4,4,4-heptafluorobutyl ester, (+)- 224167-11-7P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-, 2,2,3,3,4,4,4-heptafluorobutyl ester, (-)- 224167-12-8P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-, 2-methoxyethyl ester 224167-13-9P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-, 2-ethoxyethyl ester 224167-14-0P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-, 2-phenoxyethyl ester, (+)- 224167-15-1P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-, 2-phenoxyethyl ester, (-)- 224167-16-2P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-, 2-cyanoethyl ester 224167-17-3P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-, 2-bromoethyl ester, (+)- 224167-18-4P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-, 2-bromoethyl ester, (-)- 224167-19-5P, Benzenepropanoic acid, .alpha.-bromo-3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-, ethyl ester, (+)- 224167-20-8P, Benzenepropanoic acid, .alpha.-bromo-3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-, ethyl ester, (-)- 224167-22-0P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-.alpha.-methyl-, ethyl ester 224167-23-1P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-.alpha.-methyl-, propyl ester 224167-24-2P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-.alpha.-methyl-, butyl ester 224167-25-3P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-.alpha.-methyl-, pentyl ester 224167-26-4P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-.alpha.-methyl-, hexyl ester 224167-27-5P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-.alpha.-methyl-, 1-methylethyl ester 224167-28-6P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-.alpha.-methyl-, 2-methylpropyl ester 224167-29-7P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-.alpha.-methyl-, phenylmethyl ester 224167-30-0P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-.alpha.-methyl-, ethenyl ester 224167-31-1P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-.alpha.-methyl-, 2-propenyl ester 224167-32-2P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-.alpha.-methyl-, 2-propynyl ester 224167-34-4P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-.alpha.-methyl-, 2,2,3,3-tetrafluoropropyl ester 224167-35-5P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-.alpha.-methyl-,

2,2,2-trifluoro-1-(trifluoromethyl)ethyl ester 224167-36-6P,
 Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-
 dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-.alpha.-
 methyl-, 2-methoxyethyl ester 224167-37-7P, Benzenepropanoic acid,
 .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-
 1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-.alpha.-methyl-, 2-(methylthio)ethyl
 ester 224167-38-8P, Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-
 dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-
 2-methoxy-.alpha.-methyl-, tetrahydro-2-furanyl ester 224167-39-9P,
 Butanedioic acid, 2-chloro-2-[[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-
 4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]methyl]-,
 diethyl ester 224167-40-2P, Benzenepropanoic acid, .alpha.,3-dichloro-
 .alpha.-cyano-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
 pyrimidinyl]-5-fluoro-2-methoxy-, ethyl ester 224167-41-3P,
 Benzenepropanoic acid, .alpha.,5-dichloro-2-[4-(difluoromethyl)-4,5-
 dihydro-3-methyl-5-oxo-1H-1,2,4-triazol-1-yl]-3-fluoro-, ethyl ester
 224167-42-4P, Benzenepropanoic acid, .alpha.,3-dichloro-5-fluoro-2-methoxy-
 6-(tetrahydro-1,3-dioxo-1H-[1,2,4]triazolo[1,2-a]pyridazin-2(3H)-yl)-,
 ethyl ester 224167-43-5P, Benzenepropanoic acid, .alpha.,3-dichloro-6-
 [3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-
 fluoro-2-methyl-, ethyl ester, (+)- 224167-44-6P, Benzenepropanoic acid,
 .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-
 1(2H)-pyrimidinyl]-5-fluoro-2-methyl-, ethyl ester, (-)- 224167-45-7P,
 Benzenepropanoic acid, .alpha.,3-dichloro-5-fluoro-2-methoxy-6-[1-methyl-
 4,5-bis(trifluoromethyl)-1H-pyrazol-3-yl]-, ethyl ester 224167-46-8P,
 2,4(1H,3H)-Pyrimidinedione, 3-(2-benzoyl-4-chlorophenyl)-1-methyl-6-
 (trifluoromethyl)- 224167-47-9P, 2,4(1H,3H)-Pyrimidinedione,
 3-[4-chloro-2-[(1Z)-2-(2-naphthalenyl)ethenyl]phenyl]-1-methyl-6-
 (trifluoromethyl)- 224167-49-1P, 2,4(1H,3H)-Pyrimidinedione,
 3-[4-chloro-2-[(1E)-2-(2-naphthalenyl)ethenyl]phenyl]-1-methyl-6-
 (trifluoromethyl)- 224167-50-4P, Benzenepropanoic acid,
 .alpha.,5-dichloro-2-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-
 1(2H)-pyrimidinyl]-3-fluoro-, ethyl ester 224167-51-5P, Benzenepropanoic
 acid, .alpha.,3-dichloro-6-[4-(difluoromethyl)-4,5-dihydro-3-methyl-5-oxo-
 1H-1,2,4-triazol-1-yl]-5-fluoro-2-methoxy-, ethyl ester 224167-52-6P,
 2,4(1H,3H)-Pyrimidinedione, 3-(2,4-dichloro-3-ethoxy-6-fluorophenyl)-1-
 methyl-6-(trifluoromethyl)- 224167-53-7P, Benzenepropanoic acid,
 .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-
 1(2H)-pyrimidinyl]-2-ethoxy-5-fluoro-, ethyl ester, (+)- 224167-54-8P,
 Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-
 dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-2-ethoxy-5-fluoro-, ethyl
 ester, (-)- 224167-55-9P, Benzenepropanoic acid, .alpha.,3-dichloro-6-
 [3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-2-
 ethoxy-5-fluoro-, propyl ester, (+)- 224167-56-0P, Benzenepropanoic
 acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-
 (trifluoromethyl)-1(2H)-pyrimidinyl]-2-ethoxy-5-fluoro-, propyl ester,
 (-)- 224167-57-1P, 2,4(1H,3H)-Pyrimidinedione, 3-[2,4-dichloro-6-fluoro-
 3-(1-methylethoxy)phenyl]-1-methyl-6-(trifluoromethyl)- 224167-59-3P,
 Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-
 dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-(1-methylethoxy)-,
 ethyl ester, (+)- 224167-60-6P, Benzenepropanoic acid,
 .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-
 1(2H)-pyrimidinyl]-5-fluoro-2-(1-methylethoxy)-, ethyl ester, (-)-
 224167-61-7P, Benzenepropanoic acid, .alpha.-chloro-2-[3,6-dihydro-3-
 methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-methyl-, ethyl
 ester 224167-62-8P, Benzenepropanoic acid, .alpha.-chloro-2-[3,6-dihydro-
 3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-
 (methoxycarbonyl)-, propyl ester 224167-63-9P, Benzenepropanoic acid,
 .alpha.,3-dichloro-6-[3,5-dimethyl-6-oxo-4-(trifluoromethyl)-1(6H)-
 pyridazinyl]-5-fluoro-2-methoxy-, propyl ester 224167-64-0P,
 Benzenepropanoic acid, .alpha.,3-dichloro-6-[3,6-dihydro-3-methyl-2,6-
 dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxy-
 224167-65-1P, Pyridine, 3-chloro-2-(4-chloro-6-fluoro-3-methoxy-2-

nitrophenyl)-5-(trifluoromethyl)- 224167-66-2P, Benzenamine,
 3-chloro-6-[3-chloro-5-(trifluoromethyl)-2-pyridinyl]-5-fluoro-2-methoxy-
 224167-69-5P, Cyclopropanecarboxylic acid, 2-[3-chloro-6-[3,6-dihydro-3-
 methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-
 methoxyphenyl]hydrazide 224167-70-8P, Benzoic acid, 2-[3-chloro-6-[3,6-
 dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-
 2-methoxyphenyl]hydrazide 224167-71-9P, Benzoic acid, 2,4-difluoro-,
 2-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
 pyrimidinyl]-5-fluoro-2-methoxyphenyl]hydrazide 224167-72-0P,
 2-Naphthalenecarboxylic acid, 2-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-
 dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-
 methoxyphenyl]hydrazide 224167-73-1P, Hydrazinecarboxylic acid,
 2-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
 pyrimidinyl]-5-fluoro-2-methoxyphenyl]-, ethyl ester 224167-74-2P,
 Hydrazinecarboxylic acid, 2-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-
 (trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-, phenyl
 ester 224167-75-3P, Hydrazinecarboxamide, 2-[3-chloro-6-[3,6-dihydro-3-
 methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-
 methoxyphenyl]-N-(2,4-difluorophenyl)- 224167-76-4P, Carbamic acid,
 [[2-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
 pyrimidinyl]-5-fluoro-2-methoxyphenyl]hydrazino]carbonyl]methyl-, ethyl
 ester 224167-77-5P, 2-Propenal, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-
 dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-
 methoxyphenyl]hydrazone 224167-78-6P, Cyclopropanecarboxaldehyde,
 [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
 pyrimidinyl]-5-fluoro-2-methoxyphenyl]hydrazone 224167-79-7P,
 2,4(1H,3H)-Pyrimidinedione, 3-[4-chloro-6-fluoro-3-methoxy-2-[(1-
 methylethylidene)hydrazino]phenyl]-1-methyl-6-(trifluoromethyl)-
 224167-80-0P, 2,4(1H,3H)-Pyrimidinedione, 3-[4-chloro-6-fluoro-3-methoxy-2-
 [(2-methoxy-1-methylethylidene)hydrazino]phenyl]-1-methyl-6-
 (trifluoromethyl)- 224167-81-1P, Propanal, 3-(methylthio)-,
 [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
 pyrimidinyl]-5-fluoro-2-methoxyphenyl]hydrazone 224167-82-2P,
 Benzeneacetaldehyde, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-
 (trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]hydrazone
 224167-83-3P, Butanoic acid, 3-[[3-chloro-6-[3,6-dihydro-3-methyl-2,6-
 dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-
 methoxyphenyl]hydrazono]-, ethyl ester 224167-85-5P,
 Benzeneacetaldehyde, .alpha.-methyl-, [3-chloro-6-[3,6-dihydro-3-methyl-
 2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-
 methoxyphenyl]hydrazone 224167-86-6P, 2,4(1H,3H)-Pyrimidinedione,
 3-[4-chloro-2-[(3,4-dihydro-2(1H)-naphthalenylidene)hydrazino]-6-fluoro-3-
 methoxyphenyl]-1-methyl-6-(trifluoromethyl)- 224167-87-7P, Benzaldehyde,
 2,4-difluoro-, [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-
 (trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]hydrazone
 224167-88-8P
 , 2,4(1H,3H)-Pyrimidinedione, 3-[4-chloro-6-fluoro-3-methoxy-2-[(2,2,2-
 trifluoro-1-(trifluoromethyl)ethylidene)hydrazino]phenyl]-1-methyl-6-
 (trifluoromethyl)- 224167-89-9P, 2-Naphthalenecarboxaldehyde,
 [3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-
 pyrimidinyl]-5-fluoro-2-methoxyphenyl]hydrazone 224167-90-2P,
 2,4(1H,3H)-Pyrimidinedione, 3-(2,4-dichloro-6-hydroxyphenyl)-1-methyl-6-
 (trifluoromethyl)- 224167-92-4P, 2,4(1H,3H)-Pyrimidinedione,
 3-(2,4-dichloro-6-methoxyphenyl)-1-methyl-6-(trifluoromethyl)-
 224167-94-6P, 2,4(1H,3H)-Pyrimidinedione, 3-[2,4-dichloro-6-[(2,4-
 difluorophenyl)methoxy]phenyl]-1-methyl-6-(trifluoromethyl)-
 224167-95-7P, Benzoic acid, 2,4-difluoro-, 3,5-dichloro-2-[3,6-dihydro-3-
 methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]phenyl ester
 224167-96-8P, 2-Naphthalenecarboxylic acid, 3,5-dichloro-2-[3,6-dihydro-3-
 methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]phenyl ester
 224167-97-9P, 2,4(1H,3H)-Pyrimidinedione, 3-(4-chloro-6-fluoro-2-hydroxy-3-
 methoxyphenyl)-1-methyl-6-(trifluoromethyl)- 224167-98-0P,
 2-Naphthalenecarboxylic acid, 3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-

- (trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl ester
 224167-99-1P, 2,4(1H,3H)-Pyrimidinedione, 3-[4-chloro-6-fluoro-3-methoxy-2-(methylthio)phenyl]-1-methyl-6-(trifluoromethyl)- 224168-00-7P,
 2,4(1H,3H)-Pyrimidinedione, 3-[4-chloro-6-fluoro-3-methoxy-2-[(1-methylethyl)thio]phenyl]-1-methyl-6-(trifluoromethyl)- 224168-01-8P,
 2,4(1H,3H)-Pyrimidinedione, 3-[4-chloro-6-fluoro-3-methoxy-2-[(phenylmethyl)thio]phenyl]-1-methyl-6-(trifluoromethyl)- 224168-02-9P,
 2,4(1H,3H)-Pyrimidinedione, 3-[4-chloro-6-fluoro-3-methoxy-2-[(2-naphthalenylmethyl)thio]phenyl]-1-methyl-6-(trifluoromethyl)-
 224168-03-0P, 2,4(1H,3H)-Pyrimidinedione, 3-[4-chloro-6-fluoro-2-[(2-hydroxyethyl)thio]-3-methoxyphenyl]-1-methyl-6-(trifluoromethyl)-
 RL: AGR (Agricultural use); BSU (Biological study, unclassified); BUU (Biological use, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (prepn. of heterocyclylbenzenes as herbicides and defoliants)
- IT 224162-61-2P, 2,4(1H,3H)-Pyrimidinedione, 3-(4-chloro-6-fluoro-3-methyl-2-nitrophenyl)-1-methyl-6-(trifluoromethyl)- 224162-62-3P,
 2,4(1H,3H)-Pyrimidinedione, 3-(2-amino-4-chloro-6-fluoro-3-methylphenyl)-1-methyl-6-(trifluoromethyl)-
 RL: AGR (Agricultural use); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
 (prepn. of heterocyclylbenzenes as herbicides and defoliants)
- IT 75-30-9, Isopropyl iodide 75-45-6, Chlorodifluoromethane 100-53-8, Benzyl mercaptan 106-96-7, Propargyl bromide 137-43-9, Cyclopentyl bromide 372-29-2, Ethyl 3-amino-4,4,4-trifluorocrotonate 624-83-9, Methyl isocyanate 1489-69-6, Cyclopropanecarboxaldehyde 2243-83-6, 2-Naphthoyl chloride 2367-91-1, 1-Chloro-2,5-difluorobenzene 4023-34-1, Cyclopropanecarbonyl chloride 28162-63-2, 4-Chloro-2-nitrophenyl isocyanate 75458-17-2, 1H-Isoindole-1,3(2H)-dione, 2-(2-amino-4-chlorophenyl)- 84478-41-1, 1H-Isoindole-1,3(2H)-dione, 2-(4-chloro-2-fluoro-5-hydroxyphenyl)-4,5,6,7-tetrahydro- 84478-72-8, 5-Amino-2-chloro-4-fluorophenol 91167-85-0, 4-Chloro-2-fluoro-5-methoxyaniline 97986-19-1, 3H-1,2,4-Triazol-3-one, 2-(4-chloro-2-fluoro-5-hydroxyphenyl)-4-(difluoromethyl)-2,4-dihydro-5-methyl- 98403-91-9, 5H-Tetrazol-5-one, 1-(4-chloro-2-fluoro-5-hydroxyphenyl)-4-(3-fluoropropyl)-1,4-dihydro- 114136-60-6, 2,4(1H,3H)-Pyrimidinedione, 3-(4-chloro-2-fluoro-5-hydroxyphenyl)-1-methyl-6-(trifluoromethyl)- 114136-62-8, 2,4(1H,3H)-Pyrimidinedione, 3-(4-chloro-2-fluoro-5-hydroxyphenyl)-6-(trifluoromethyl)- 114168-84-2, 2,4(1H,3H)-Pyrimidinedione, 3-(4-chloro-2-fluoro-5-methoxyphenyl)-6-(trifluoromethyl)- 116759-33-2, 4-Chloro-2-fluoro-5-methylaniline 142624-20-2, 1H-Pyrazole, 4-chloro-3-(4-chloro-2-fluoro-5-methoxyphenyl)-1-methyl-5-(trifluoromethyl)- 188489-77-2, 3(2H)-Pyridazinone, 2-(4-chloro-2-fluoro-5-hydroxyphenyl)-5-(trifluoromethyl)- 198777-73-0, 2,4(1H,3H)-Pyrimidinedione, 3-(2-amino-4-chloro-6-fluorophenyl)-1-methyl-6-(trifluoromethyl)- 224168-19-8, 2,4(1H,3H)-Pyrimidinedione, 3-(5-amino-4-chloro-2-fluorophenyl)-6-(trifluoromethyl)- 224168-20-1, 2,4(1H,3H)-Pyrimidinedione, 3-(4-chloro-6-fluoro-2-isocyanato-3-methylphenyl)-1-methyl-6-(trifluoromethyl)-
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (prepn. of heterocyclylbenzenes as herbicides and defoliants)
- IT 578-28-9P, Benzene, 1-chloro-2,5-difluoro-4-nitro- 2613-30-1P, Benzenamine, 4-chloro-2,5-difluoro- 212904-07-9P, 2,4(1H,3H)-Pyrimidinedione, 3-(2-amino-4-chlorophenyl)-1-methyl-6-(trifluoromethyl)- 212904-42-2P, 2,4(1H,3H)-Pyrimidinedione, 3-(4-chloro-2-nitrophenyl)-6-(trifluoromethyl)- 212904-43-3P, 2,4(1H,3H)-Pyrimidinedione, 3-(4-chloro-2-nitrophenyl)-1-methyl-6-(trifluoromethyl)- 224168-05-2P, 1H-Isoindole-1,3(2H)-dione, 2-(4-chloro-2-fluoro-5-methoxyphenyl)- 224168-06-3P, 1H-Isoindole-1,3(2H)-dione, 2-(4-chloro-6-fluoro-3-methoxy-2-nitrophenyl)- 224168-07-4P, 1H-Isoindole-1,3(2H)-dione, 2-(2-amino-4-chloro-6-fluoro-3-methoxyphenyl)- 224168-08-5P, Benzenamine, 4-chloro-6-fluoro-3-methoxy-2-nitro- 224168-09-6P, Benzene,

1-chloro-5-fluoro-4-isocyanato-2-methoxy-3-nitro- 224168-10-9P,
 1H-Isoindole-1,3(2H)-dione, 2-(4-chloro-2-fluoro-5-hydroxyphenyl)-
 224168-11-0P, Carbamic acid, (4-chloro-2,5-difluorophenyl)-, ethyl ester
 224168-12-1P, Carbamic acid, (4-chloro-3,6-difluoro-2-nitrophenyl)-, ethyl
 ester 224168-13-2P, Benzenamine, 4-chloro-3,6-difluoro-2-nitro-
 224168-14-3P, Carbamic acid, [2-chloro-5-[3,6-dihydro-2,6-dioxo-4-
 (trifluoromethyl)-1(2H)-pyrimidinyl]-4-fluorophenyl]-, ethyl ester
 224168-15-4P, Carbamic acid, (4-chloro-2-fluoro-5-methylphenyl)-, phenyl
 ester 224168-16-5P, Carbamic acid, (4-chloro-6-fluoro-3-methyl-2-
 nitrophenyl)-, phenyl ester 224168-17-6P, 2,4(1H,3H)-Pyrimidinedione,
 3-(4-chloro-6-fluoro-3-methyl-2-nitrophenyl)-6-(trifluoromethyl)-
 224168-22-3P, 2,4(1H,3H)-Pyrimidinedione, 3-(4-chloro-6-fluoro-2-
 isocyanato-3-methoxyphenyl)-1-methyl-6-(trifluoromethyl)-
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)

(prepn. of heterocyclbenzenes as herbicides and defoliants)

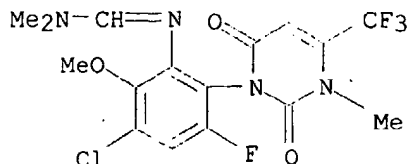
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IT 224162-57-6P, Methanimidamide, N'-[3-chloro-6-[3,6-dihydro-3-
 methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-
 methoxyphenyl]-N,N-dimethyl-
 RL: AGR (Agricultural use); BSU (Biological study,
 unclassified); BUU (Biological use, unclassified); SPN (Synthetic
 preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (prepn. of heterocyclbenzenes as herbicides and defoliants)

RN 224162-57-6 HCAPLUS

CN Methanimidamide, N'-[3-chloro-6-[3,6-dihydro-3-methyl-2,6-dioxo-4-(trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-N,N-dimethyl- (9CI) (CA INDEX NAME)



L97 ANSWER 3 OF 32 HCAPLUS COPYRIGHT 2003 ACS

AN 2001:934012 HCAPLUS

DN 136:53758

TI Preparation of diaryl ethers as herbicides and desiccants

IN Pulman, David A.; Ying, Bai-ping; Wu, Shao-yong; Gupta, Sandeep; Shimoharada, Hiroshi; Tsukamoto, Masamitsu

PA Isk Americas Incorporated, USA

SO U.S., 47 pp., Cont.-in-part of U.S. Ser. No. 947,900, abandoned.

CODEN: USXXAM

DT Patent

LA English

IC ICM C07D239-46

ICS C07D239-52; A01N043-54

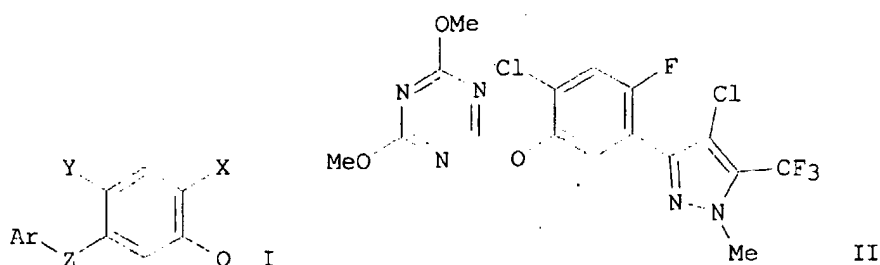
NCL 504243000

CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 5

FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|--------------|
| PI | US 6333296 | B1 | 20011225 | US 1999-380830 | 19990910 <-- |
| | WO 9841093 | A1 | 19980924 | WO 1998-US209 | 19980114 <-- |
| | W: | | | | |
| | AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, US, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: | | | | |
| | GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| | ZA 9802158 | A | 19980914 | ZA 1998-2158 | 19980313 <-- |
| | US 2002161224 | A1 | 20021031 | US 2001-779674 | 20010209 |
| | US 6479435 | B2 | 20021112 | | |
| PRAI | US 1997-818061 | B2 | 19970314 | | |
| | US 1997-917682 | B2 | 19970826 | | |
| | US 1997-947900 | B2 | 19971009 | | |
| | WO 1998-US209 | W | 19980114 | | |
| | US 1999-380830 | A3 | 19990910 | | |
| OS | MARPAT 136:53758 | | | | |
| GI | | | | | |



AB The diaryl ethers I [X, Y = H, halo, CN, NO₂, haloalkyl; Z = O, S; Q = (un)substituted N-contg. heterocyclyl; Ar = (un)substituted aryl or heteroaryl] were prepd. as herbicides and desiccants. Thus, reacting 4-chloro-3-(4-chloro-2-fluoro-5-hydroxyphenyl)-1-methyl-5-trifluoromethyl-1H-pyrazole with 2-chloro-4,6-dimethoxytriazine in the presence of K₂CO₃ in DMF afforded 82% II which showed complete damage of *Amaranthus retroflexus*, *Chenopodium album* and *Setaria viridis* at 500 g ai/ha in pre-emergence test.

ST diaryl ether prepn herbicide desiccant

IT Drying agents

Herbicides

(diaryl ethers)

IT 86798-19-8P 95149-79-4P 147217-52-5P 213677-71-5P 213677-72-6P
213677-73-7P 213677-75-9P 213677-76-0P 213677-78-2P 213677-79-3P
213677-80-6P 213677-81-7P 213677-83-9P 213677-84-0P 213677-86-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate in prepn. of diaryl ether herbicides and desiccants)

IT 213675-78-6P 213675-79-7P 213675-80-0P 213675-81-1P 213675-82-2P
213675-83-3P 213675-84-4P 213675-85-5P 213675-86-6P 213675-87-7P
213675-88-8P 213675-90-2P 213675-91-3P 213675-92-4P 213675-93-5P
213675-94-6P 213675-96-8P 213675-98-0P 213676-00-7P 213676-03-0P
213676-04-1P 213676-06-3P 213676-09-6P 213676-11-0P 213676-12-1P
213676-13-2P 213676-14-3P 213676-16-5P 213676-18-7P 213676-20-1P
213676-22-3P 213676-23-4P 213676-24-5P 213676-25-6P 213676-26-7P
213676-28-9P 213676-29-0P 213676-31-4P 213676-32-5P 213676-33-6P
213676-35-8P 213676-36-9P 213676-37-0P 213676-39-2P 213676-40-5P
213676-42-7P 213676-44-9P 213676-45-0P 213676-46-1P 213676-47-2P
213676-48-3P 213676-49-4P 213676-50-7P 213676-51-8P 213676-52-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate in prepn. of diaryl ethers herbicides and desiccants)

IT 213675-43-5 213675-44-6 213675-46-8 213675-47-9 213675-48-0
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213675-55-9 213675-57-1 213675-58-2 213675-59-3 213675-60-6
213675-61-7 213675-62-8 213675-63-9 213675-64-0 213675-65-1
213675-66-2 213675-67-3 213675-69-5 213675-70-8 213675-71-9
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213675-77-5 213676-53-0 213676-54-1 213676-55-2 213676-56-3
213676-57-4 213676-58-5 213676-60-9 213676-61-0 213676-62-1
213676-64-3 213676-65-4 213676-66-5 213676-67-6 213676-68-7
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213677-02-2 213677-03-3 213677-04-4 213677-05-5
213677-07-7 213677-08-8 213677-10-2 213677-11-3 213677-12-4
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| 213677-18-0 | 213677-19-1 | 213677-20-4 | 213677-21-5 | 213677-22-6 |
| 213677-23-7 | 213677-24-8 | 213677-25-9 | 213677-27-1 | 213677-28-2 |
| 213677-29-3 | 213677-30-6 | 213677-32-8 | 213677-33-9 | 213677-34-0 |
| 213677-35-1 | 213677-36-2 | 213677-37-3 | 213677-38-4 | 213677-39-5 |
| 213677-40-8 | 213677-41-9 | 213677-42-0 | 213677-43-1 | 213677-44-2 |
| 213677-45-3 | 213677-46-4 | 213677-47-5 | 213677-48-6 | 213677-49-7 |
| 213677-50-0 | 213677-51-1 | 213677-53-3 | 213677-54-4 | 213677-55-5 |
| 213677-56-6 | 213677-58-8 | 213677-59-9 | 213677-60-2 | 213677-61-3 |
| 213677-62-4 | 213677-63-5 | 213677-64-6 | 213677-65-7 | 213677-66-8 |
| 213677-67-9 | 213677-68-0 | | | |

RL: AGR (Agricultural use); BSU (Biological study, unclassified); MSC (Miscellaneous); BIOL (Biological study); USES (Uses) (prepn. as herbicide and desiccant)

IT 352-91-0, 1-Bromo-3-fluoropropane 372-29-2, Ethyl 3-amino-4,4,4-trifluorocrotonate 1722-12-9, 2-Chloropyrimidine 3140-73-6 5470-18-8, 2-Chloro-3-nitropyridine 17508-17-7, 2,4-Dinitrophenoxamine 20201-24-5, Ethyl 3-methyl-2-oxobutyrate 65753-47-1, 2-Chloro-3-trifluoromethylpyridine 70912-52-6 84478-38-6, 4-Chloro-2-fluoro-5-isopropoxyaniline 84478-72-8, 5-Amino-2-chloro-4-fluorophenol 85113-29-7, 4-Chloro-2-fluoro-5-isopropoxyphenyl isocyanate 114136-62-8 142625-52-3 213677-70-4 213677-74-8

RL: RCT (Reactant); RACT (Reactant or reagent)

(reactant in prepn. of diaryl ethers as herbicides and desiccants)

RE.CNT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD

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- (19) Boger; US 4677127 1987 HCAPLUS
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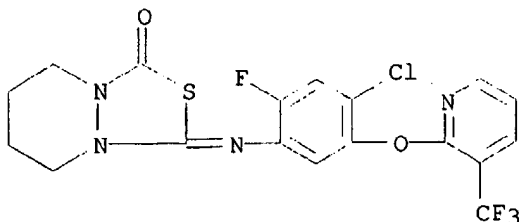
IT 213677-04-4

RL: AGR (Agricultural use); BSU (Biological study,

unclassified); MSC (Miscellaneous); BIOL (Biological study); USES (Uses)
(prepn. as herbicide and desiccant)

RN 213677-04-4 HCAPLUS

CN 1H,3H-[1,3,4]Thiadiazolo[3,4-a]pyridazin-1-one, 3-[[4-chloro-2-fluoro-5-
[[3-(trifluoromethyl)-2-pyridinyl]oxy]phenyl]imino]tetrahydro- (9CI) (CA
INDEX NAME)



L97 ANSWER 4 OF 32 HCAPLUS COPYRIGHT 2003 ACS

AN 2001:915240 HCAPLUS

DN 136:195583

TI 3-(Heterocyclyl)phenyl cyanurates: synthesis and herbicidal activity

AU Karp, Gary M.; Crews, A. Don; Manfredi, Mark C.; Kleemann, Axel; Arotin, Robert L.; Crawley, Matthew L.; Dahlke, Brian; Baerg, Roger

CS BASF Agro Research, Princeton, NJ, 08543-0400, USA

SO ACS Symposium Series (2002), 800(Synthesis and Chemistry of Agrochemicals VI), 30-40

CODEN: ACSMC8; ISSN: 0097-6156

PB American Chemical Society

DT Journal

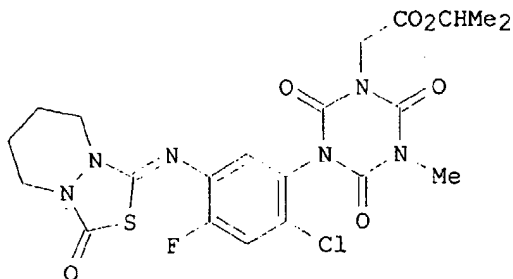
LA English

CC 5-3 (Agrochemical Bioregulators)

Section cross-reference(s): 28

OS CASREACT 136:195583

GI



I

AB 3-(Heterocyclyl)phenyl cyanurates such as I make up a novel class of protoporphyrinogen oxidase (protox) inhibitors which were prepd. and evaluated for herbicidal activity. The compds. were primarily postemergence broadleaf compds. The effect of changes in the aryl moiety, the heteroaryl moiety, and in the pendant ester of the cyanurate moiety on the herbicidal activity of the heterocyclylaryl cyanurates was studied.

ST heterocyclylphenyl cyanurate prepn herbicidal activity; structure heterocyclylphenyl cyanurate herbicidal activity

IT Structure-activity relationship
(herbicidal; prepn. and herbicidal activity of (heterocyclyl)phenyl cyanurate protoporphyrinogen oxidase inhibitors)

- IT Herbicides
(prepn. and herbicidal activity of (heterocyclyl)phenyl cyanurate
protoporphyrinogen oxidase inhibitors)
- IT 185382-58-5P
RL: AGR (Agricultural use); RCT (Reactant); SPN (Synthetic preparation);
BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent);
USES (Uses)
(prepn. and herbicidal activity of (heterocyclyl)phenyl cyanurate
protoporphyrinogen oxidase inhibitors)
- IT 185382-47-2P 185382-48-3P 185382-50-7P 185382-51-8P 185382-59-6P
185382-60-9P 204383-93-7P 204383-94-8P 204383-99-3P
204384-00-9P 204384-06-5P 204384-07-6P
204384-08-7P 204384-19-0P 204384-20-3P
401524-41-2P 401524-46-7P
RL: AGR (Agricultural use); SPN (Synthetic preparation); BIOL
(Biological study); PREP (Preparation); USES (Uses)
(prepn. and herbicidal activity of (heterocyclyl)phenyl cyanurate
protoporphyrinogen oxidase inhibitors)
- IT 53986-32-6, Protoporphyrinogen oxidase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(prepn. and herbicidal activity of (heterocyclyl)phenyl cyanurate
protoporphyrinogen oxidase inhibitors)
- IT 96-32-2, Methyl bromoacetate 348-54-9, 2-Fluoroaniline 367-25-9,
2,4-Difluoroaniline 372-29-2 445-28-3, 2-Fluorobenzamide 554-00-7,
2,4-Dichloroaniline 694-06-4 1003-98-1, 2-Bromo-4-fluoroaniline
1006-40-2, 2-Bromo-4-fluorobenzamide 2106-02-7, 2-Chloro-4-fluoroaniline
2426-02-0 2447-79-2, 2,4-Dichlorobenzamide 15862-72-3 29921-57-1,
Isopropyl bromoacetate 58729-31-0 84005-98-1 85118-02-1,
2,4-Difluorobenzamide 88578-90-9, 2-Chloro-4-fluorobenzamide
89990-53-4 204384-15-6 401524-44-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. and herbicidal activity of (heterocyclyl)phenyl cyanurate
protoporphyrinogen oxidase inhibitors)
- IT 5310-94-1P 13140-07-3P 39718-27-9P 185382-65-4P 185382-67-6P
185382-68-7P 185382-69-8P 185382-70-1P 185382-71-2P 185382-72-3P
185382-73-4P 185382-74-5P 185382-75-6P 185382-76-7P 185382-77-8P
185382-78-9P 185382-79-0P 185382-83-6P 185382-84-7P 185382-85-8P
185382-86-9P 185382-87-0P 185382-88-1P 185382-89-2P 204383-98-2P
204384-10-1P 401524-33-2P 401524-34-3P 401524-35-4P 401524-36-5P
401524-37-6P 401524-38-7P 401524-39-8P 401524-40-1P 401524-43-4P
401524-45-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)
(prepn. and herbicidal activity of (heterocyclyl)phenyl cyanurate
protoporphyrinogen oxidase inhibitors)
- IT 401524-42-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. and herbicidal activity of (heterocyclyl)phenyl cyanurate
protoporphyrinogen oxidase inhibitors)
- RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
- RE
- (1) Anderson, R; Porphyrin Pesticides; Chemistry, Toxicology and Pharmaceutical Applications, Symposium 559 1994, P18 HCAPLUS
 - (2) Brouwer, W; US 4979982 1990 HCAPLUS
 - (3) Brown, G; J Chem Soc Perkin Trans I 1985, P2577 HCAPLUS
 - (4) Clark, R; Porphyrin Pesticides; Chemistry, Toxicology and Pharmaceutical Applications, Symposium 559 P33
 - (5) Crews, A; US 5519133 1996 HCAPLUS
 - (6) Crews, A; US 5679791 1997 HCAPLUS
 - (7) Matringe, M; Pestic Biochem Physiol 1988, V32, P164 HCAPLUS
 - (8) Pallett, K; Proceedings Brighton Crop Protection Conf-Weeds 1997, V7A, P575
 - (9) Satow, J; US 5356863 1994 HCAPLUS
 - (10) Satow, J; Synthesis and Chemistry of Agrochemicals, Symposium 584 1995,

V6, P100

(11) Uraguchi, R; J Pest Sci 1997, V22, P314 HCAPLUS

(12) Wakabayashi, K; Z Naturforsch 1995, V50c, P591

(13) Witkowski, D; Plant Physiol 1988, V86, P619

IT 185382-60-9P

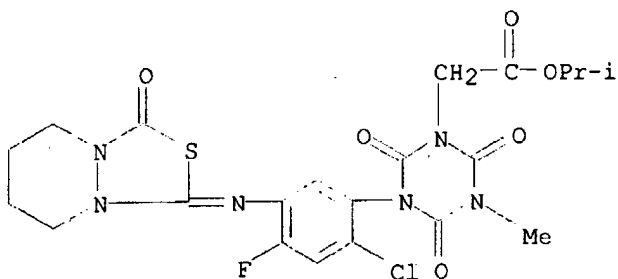
RL: AGR (Agricultural use); SPN (Synthetic preparation); BIOL

(Biological study); PREP (Preparation); USES (Uses)

(prepn. and herbicidal activity of (heterocyclyl)phenyl cyanurate
protoporphyrinogen oxidase inhibitors)

RN 185382-60-9 HCAPLUS

CN 1,3,5-Triazine-1(2H)-acetic acid, 3-[2-chloro-4-fluoro-5-[(tetrahydro-3-oxo-1H,3H-[1,3,4]thiadiazolo[3,4-a]pyridazin-1-ylidene)amino]phenyl]tetrahydro-5-methyl-2,4,6-trioxo-, 1-methylethyl ester (9CI) (CA INDEX NAME)



L97 ANSWER 5 OF 32 HCAPLUS COPYRIGHT 2003 ACS

AN 2001:757844 HCAPLUS

DN 135:303879

TI Preparation of 1-(3-heterocyclylphenyl) isothioureia, -isourea, -guanidine and -amidine herbicidal agents

IN Karp, Gary Mitchell

PA American Cyanamid Co., USA

SO U.S., 103 pp.

CODEN: USXXAM

DT Patent

LA English

IC ICM C07D239-02

ICS A01N043-54

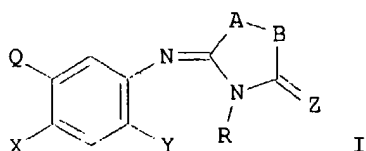
NCL 544319000

CC 28-7 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 5

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-------------------|------|----------|-----------------|--------------|
| PI | US 6303783 | B1 | 20011016 | US 1999-368340 | 19990804 <-- |
| | US 2002137929 | A1 | 20020926 | US 2001-930790 | 20010816 |
| PRAI | US 1998-96448P | P | 19980813 | | |
| | US 1999-368340 | A3 | 19990804 | | |
| OS | MARPAT 135:303879 | | | | |
| GI | | | | | |



AB The title compds. 1-(3-heterocyclylphenyl) isothiourea, -isourea, -guanidine, and -amidine I [X, Y = H, halo, NO₂, cyano, alkyl, haloalkyl, S(O)mR₁; R = H, alkyl, cycloalkyl, alkenyl, heterocyclyl, etc.; Z = O, S; Q = dioxodihydropyrimidinyl, oxothioxodihydropyrimidinyl], herbicides, were prepd. E.g. 3-{4-chloro-2-fluoro-5-[3-methyl-4-oxo-2-thiazolidinylideneamino]phenyl}-1-methyl-6-(trifluoromethyl)-2,4(1H,3H)-pyrimidinedione was prepd. Postemergence herbicidal activity of I was detd.

ST thiazolidinylidene pyrimidinedione prepn herbicide

IT Herbicides
(postemergence; prepn. of 1-(3-heterocyclylphenyl) isothiourea, -isourea, -guanidine and -amidine herbicidal agents)

IT 260976-89-4P 260976-90-7P 260976-91-8P
260976-92-9P 260976-93-0P 260976-94-1P
260977-34-2P 260978-84-5P
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(prepn. of 1-(3-heterocyclylphenyl) isothiourea, -isourea, -guanidine and -amidine herbicidal agents)

IT 260976-95-2P 260976-96-3P 260976-97-4P
260976-98-5P 260976-99-6P 260977-00-2P
260977-01-3P 260977-02-4P 260977-03-5P
260977-04-6P 260977-05-7P 260977-06-8P
260977-07-9P 260977-08-0P 260977-09-1P
260977-10-4P 260977-11-5P 260977-12-6P
260977-13-7P 260977-14-8P 260977-15-9P
260977-16-0P 260977-17-1P 260977-18-2P
260977-19-3P 260977-20-6P 260977-21-7P
260977-22-8P 260977-23-9P 260977-24-0P
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260977-31-9P 260977-32-0P 260977-33-1P
260977-35-3P 260977-36-4P 260977-37-5P
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260977-41-1P 260977-42-2P 260977-43-3P
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260978-27-6P 260978-28-7P 260978-29-8P
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 260978-71-0P 260978-73-2P 260978-74-3P
 260978-76-5P 260978-78-7P 260978-80-1P
 260978-82-3P 260978-85-6P 260978-86-7P
 366447-61-2P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

- (prepn. of 1-(3-heterocyclylphenyl) isothiurea, -isourea, -guanidine and -amidine herbicidal agents)
- IT 57-06-7, Allyl isothiocyanate 67-64-1, Acetone, reactions 75-04-7, Ethanamine, reactions 75-31-0, 2-Propanamine, reactions 96-35-5, Methyl glycolate 107-10-8, 1-Propanamine, reactions 108-31-6, Maleic anhydride, reactions 109-85-3 399-35-9 406-34-8 535-11-5, Ethyl 2-bromopropionate 556-61-6, Methyl isothiocyanate 616-34-2 753-90-2 762-21-0, Diethyl acetylenedicarboxylate 1003-03-8, Cyclopentanamine 2426-02-0, 3,4,5,6-Tetrahydrophthalic anhydride 2516-34-9, Cyclobutanamine 3196-73-4, .beta.-Alanine methyl ester hydrochloride 3251-07-8 4650-60-6 6456-74-2 7524-50-7, L-Phenylalanine methyl ester hydrochloride 17702-11-3 18542-42-2 24066-82-8, Ethyl isothiocyanatoacetate 30389-17-4, 3-Butyn-2-amine 34033-44-8, 2,4-Dichloro-5-nitroaniline 35661-39-3D, resin bound 50917-72-1 57946-56-2, 4-Chloro-2-fluoroaniline 141860-79-9, 2-Dimethylamino-4-(trifluoromethyl)-6H-1,3-oxazin-6-one 366446-58-4
- RL: RCT (Reactant); RACT (Reactant or reagent)
- (prepn. of 1-(3-heterocyclylphenyl) isothiurea, -isourea, -guanidine and -amidine herbicidal agents)
- IT 59280-72-7P 86987-15-7P 86988-02-5P, 4-Chloro-2-fluoro-5-nitroaniline 86988-03-6P 114136-67-3P, 3-(4-Chloro-2-fluoro-5-nitrophenyl)-1-methyl-6-(trifluoromethyl)-2,4(1H,3H)-pyrimidinedione 114136-68-4P, 3-(4-Chloro-2-fluoro-5-nitrophenyl)-6-(trifluoromethyl)-2,4(1H,3H)-pyrimidinedione 114136-76-4P, 3-(5-Amino-4-chloro-2-fluorophenyl)-1-methyl-6-(trifluoromethyl)-2,4(1H,3H)-pyrimidinedione 141716-19-0P, 3-(5-Amino-2,4-dichlorophenyl)-1-methyl-6-(trifluoromethyl)-2,4(1H,3H)-pyrimidinedione 145740-42-7P 260978-88-9P 260978-99-2P 260979-00-8P 260979-01-9P 260979-21-3P 260979-22-4P 366446-59-5P, 3-(2,4-Dichloro-5-nitrophenyl)-6-(trifluoromethyl)-2,4(1H,3H)-pyrimidinedione 366446-60-8P, 3-(2,4-Dichloro-5-nitrophenyl)-1-methyl-6-(trifluoromethyl)-2,4(1H,3H)-pyrimidinedione 366446-61-9P 366446-62-0P 366446-63-1P 366446-64-2P 366446-65-3P 366446-66-4P 366446-67-5P 366446-68-6P 366446-69-7P 366446-70-0P 366446-71-1P 366446-72-2P 366446-73-3P 366446-74-4P 366446-75-5P 366446-76-6P 366446-77-7P 366446-78-8P 366446-79-9P 366446-80-2P 366446-81-3P 366446-82-4P 366446-83-5P 366446-84-6P 366446-85-7P 366446-86-8P 366446-87-9P 366446-88-0P 366446-89-1P 366446-90-4P 366446-91-5P 366446-92-6P 366446-93-7P 366446-94-8P 366446-95-9P 366446-96-0P 366446-97-1P 366446-98-2P 366446-99-3P 366447-00-9P 366447-01-0P 366447-02-1P 366447-03-2P 366447-04-3P 366447-05-4P 366447-06-5P 366447-07-6P 366447-08-7P 366447-09-8P 366447-10-1P

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 366447-65-6P 366447-66-7P 366447-67-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)

(prepn. of 1-(3-heterocyclylphenyl) isothiurea, -isourea, -guanidine
 and -amidine herbicidal agents)

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

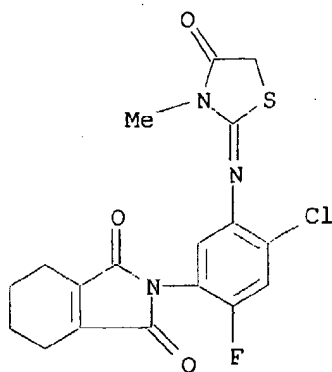
- (1) Achary; 1976 HCAPLUS
- (2) Anon; EP 0270138 1979 HCAPLUS
- (3) Anon; EP 270138 1979 HCAPLUS
- (4) Anon; EP 3640 1979 HCAPLUS
- (5) Anon; DK 3505432 1985
- (6) Anon; JP 07304759 1994 HCAPLUS
- (7) Anon; EP 0745599 A2 1996 HCAPLUS
- (8) Chaudhary; 1969 HCAPLUS
- (9) Klopping; US 3287466 1966 HCAPLUS
- (10) Rao; 1974 HCAPLUS
- (11) Singh; 1977 HCAPLUS
- (12) Vladzimirskaya; 1988 HCAPLUS
- (13) Wellinga; US 4854961 1989 HCAPLUS

IT 260976-89-4P

RL: AGR (Agricultural use); BAC (Biological activity or
 effector, except adverse); BSU (Biological study, unclassified); RCT
 (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP
 (Preparation); RACT (Reactant or reagent); USES (Uses)
 (prepn. of 1-(3-heterocyclylphenyl) isothiurea, -isourea, -guanidine
 and -amidine herbicidal agents)

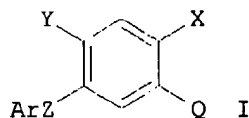
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CN 1H-Isoindole-1,3(2H)-dione, 2-[4-chloro-2-fluoro-5-[(3-methyl-4-oxo-2-
 thiazolidinylidene)amino]phenyl]-4,5,6,7-tetrahydro- (9CI) (CA INDEX
 NAME)



L97 ANSWER 6 OF 32 HCAPLUS COPYRIGHT 2003 ACS
 AN 2000:658481 HCAPLUS
 DN 133:238025
 TI Preparation of azinyl phenyl ethers as herbicides and plant desiccants.
 IN Pulman, David A.; Ying, Bai-Ping; Wu, Shao-Yong; Gupta, Sandeep;
 Tsukamoto, Masamitsu; Haga, Takahiro
 PA Ishihara Sangyo Kaisha, Ltd., Japan
 SO U.S., 47 pp., Cont.-in-part of U.S. Ser. No. 151,306.
 CODEN: USXXAM
 DT Patent
 LA English
 IC ICM C07D231-20
 ICS A01N043-56
 NCL 504230000
 CC 28-19 (Heterocyclic Compounds (More Than One Hetero Atom))
 Section cross-reference(s): 5
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-------------------|------|----------|-----------------|--------------|
| PI | US 6121201 | A | 20000919 | US 1998-159233 | 19980923 <-- |
| | US 6303543 | B1 | 20011016 | US 2000-570911 | 20000515 |
| PRAI | US 1998-151306 | A2 | 19980911 | | |
| | US 1998-159233 | A3 | 19980923 | | |
| OS | MARPAT 133:238025 | | | | |
| GI | | | | | |



AB Title compds. [I; X, Y = H, halo, cyano, NO₂, haloalkyl; Z = O, S; Q = (substituted) pyrazolyl, imidazolyl, triazolyl, tetrazolyl, pyridazinyl, etc.; Ar = (substituted) aryl, heteroaryl], were prepd. Thus, 4-chloro-3-(4-chloro-2-fluoro-5-hydroxyphenyl)-1-methyl-5-trifluoromethyl-1H-pyrazole, 2-chloro-4,6-dimethoxytriazine, and K₂CO₃ were stirred 2 h in DMF at 90.degree. to give 81.6% 4-chloro-3-[4-chloro-2-fluoro-5-(4,6-dimethoxy-2-triazinyloxy)phenyl]-1-methyl-5-trifluoromethyl-1H-pyrazole. Numerous I at 125-500 g/ha preemergent gave 100% control of Amaranthus retroflexus, Abutilon theophrasti, etc.
 ST azinyl phenyl ether prepn herbicide plant desiccant; cotton desiccant azinyl phenyl ether; potato desiccant azinyl phenyl ether

IT Cotton
Potato (*Solanum tuberosum*)
(desiccants; prepn. of azinyl Ph ethers as herbicides and plant desiccants)

IT Corn
(herbicides for corn crops; prepn. of azinyl Ph ethers as herbicides and plant desiccants)

IT Soybean (*Glycine max*)
(herbicides for soybean crops; prepn. of azinyl Ph ethers as herbicides and plant desiccants)

IT Desiccants, plant
Herbicides
(prepn. of azinyl Ph ethers as herbicides and plant desiccants)

IT 213675-46-8P 213677-63-5P
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(prepn. of azinyl Ph ethers as herbicides and plant desiccants)

IT 213675-43-5P 213675-44-6P 213675-47-9P 213675-48-0P 213675-49-1P
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213676-94-9P 213676-96-1P 213677-00-0P 213677-01-1P 213677-02-2P
213677-03-3P 213677-04-4P 213677-05-5P 213677-07-7P
213677-08-8P 213677-10-2P 213677-11-3P 213677-12-4P 213677-13-5P
213677-14-6P 213677-15-7P 213677-16-8P 213677-17-9P 213677-18-0P
213677-19-1P 213677-20-4P 213677-21-5P 213677-22-6P 213677-23-7P
213677-24-8P 213677-25-9P 213677-27-1P 213677-28-2P 213677-29-3P
213677-30-6P 213677-32-8P 213677-33-9P 213677-34-0P 213677-35-1P
213677-36-2P 213677-37-3P 213677-38-4P 213677-39-5P 213677-40-8P
213677-41-9P 213677-42-0P 213677-43-1P 213677-44-2P 213677-45-3P
213677-46-4P 213677-47-5P 213677-48-6P 213677-49-7P 213677-50-0P
213677-51-1P 213677-53-3P 213677-54-4P 213677-55-5P 213677-56-6P
213677-58-8P 213677-59-9P 213677-60-2P 213677-61-3P 213677-62-4P
213677-64-6P 213677-65-7P 213677-66-8P 213677-67-9P 213677-68-0P
292856-04-3P 292856-05-4P 292856-06-5P 292856-07-6P 292856-09-8P
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of azinyl Ph ethers as herbicides and plant desiccants)

IT 75-04-7, Ethylamine, reactions 75-45-6, Chlorodifluoromethane 88-73-3,
2-Chloronitrobenzene 110-52-1, 1,4-Dibromobutane 352-91-0,
1-Bromo-3-fluoropropane 372-29-2, Ethyl 3-amino-4,4,4-trifluorocrotonate
431-67-4, 1,1-Dibromo-3,3,3-trifluoroacetone 535-11-5, Ethyl
2-bromopropionate 1099-45-2 1722-12-9, 2-Chloropyrimidine 3140-73-6
5470-18-8, 2-Chloro-3-nitropyridine 5740-50-1 17508-17-7 20201-24-5,
Ethyl 3-methyl-2-oxobutyrate 65753-47-1, 2-Chloro-3-
trifluoromethylpyridine 70912-52-6 84478-38-6, 4-Chloro-2-fluoro-5-
isopropoxyaniline 84478-72-8, 5-Amino-2-chloro-4-fluorophenol
85113-29-7 110956-96-2 114136-62-8 129631-56-7 142625-52-3
156777-24-1 213677-74-8 292856-11-2 292856-12-3
RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of azinyl Ph ethers as herbicides and plant desiccants)

| | | | | | |
|----|--------------|--------------|--------------|--------------|--------------|
| IT | 86798-19-8P | 95149-79-4P | 147217-52-5P | 213675-78-6P | 213675-79-7P |
| | 213675-80-0P | 213675-81-1P | 213675-82-2P | 213675-83-3P | 213675-84-4P |
| | 213675-85-5P | 213675-86-6P | 213675-87-7P | 213675-88-8P | 213675-90-2P |
| | 213675-91-3P | 213675-92-4P | 213675-93-5P | 213675-94-6P | 213675-96-8P |
| | 213675-98-0P | 213676-00-7P | 213676-04-1P | 213676-06-3P | 213676-09-6P |
| | 213676-11-0P | 213676-12-1P | 213676-13-2P | 213676-14-3P | 213676-16-5P |
| | 213676-18-7P | 213676-20-1P | 213676-22-3P | 213676-23-4P | 213676-24-5P |
| | 213676-25-6P | 213676-26-7P | 213676-28-9P | 213676-29-0P | 213676-31-4P |
| | 213676-32-5P | 213676-33-6P | 213676-35-8P | 213676-36-9P | 213676-37-0P |
| | 213676-39-2P | 213676-40-5P | 213676-42-7P | 213676-44-9P | 213676-45-0P |
| | 213676-46-1P | 213676-47-2P | 213676-48-3P | 213676-49-4P | 213676-50-7P |
| | 213676-51-8P | 213676-52-9P | 213677-71-5P | 213677-72-6P | 213677-75-9P |
| | 213677-76-0P | 213677-78-2P | 213677-79-3P | 213677-80-6P | 213677-81-7P |
| | 213677-83-9P | 213677-84-0P | 213677-86-2P | 292848-97-6P | |

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of azinyl Ph ethers as herbicides and plant desiccants)

RE.CNT 31 THERE ARE 31 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Anon; JP 57197268 1982 HCAPLUS
- (2) Anon; EP 0197495 B1 1986 HCAPLUS
- (3) Anon; JP 04225937 1992 HCAPLUS
- (4) Anon; JP 05202031 1993 HCAPLUS
- (5) Anon; JP 525173 1993
- (6) Anon; JP 06256312 1994 HCAPLUS
- (7) Anon; WO 9602523 A1 1996 HCAPLUS
- (8) Anon; WO 9607323 1996 HCAPLUS
- (9) Anon; WO 9608151 1996 HCAPLUS
- (10) Anon; WO 9728127 1997 HCAPLUS
- (11) Anon; EP 0885885 A1 1998 HCAPLUS
- (12) Anon; WO 9814452 1998 HCAPLUS
- (13) Anon; WO 9841093 1998 HCAPLUS
- (14) Cantegril; US 5945382 1999 HCAPLUS
- (15) Enomoto; US 5280010 1994 HCAPLUS
- (16) Halling; US 5298502 1994 HCAPLUS
- (17) Hirai; US 4902337 1990 HCAPLUS
- (18) Hirai; Scifinder 1998, P20
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- (20) Miura; US 5032165 1991 HCAPLUS
- (21) Moustafa; 1984 HCAPLUS
- (22) Nagano; US 4452981 1984 HCAPLUS
- (23) Poss; US 5125958 1992 HCAPLUS
- (24) Singhbansal; US 5466662 1995 HCAPLUS
- (25) Theodoridis; US 4985065 1991 HCAPLUS
- (26) Theodoridis; US 5861359 1999 HCAPLUS
- (27) Watanabe; 1994 HCAPLUS
- (28) Wenger; 1988 HCAPLUS
- (29) Wenger; US 4859229 1989 HCAPLUS
- (30) Wolf; US 4213773 1980 HCAPLUS
- (31) Woodard; US 5496956 1996 HCAPLUS

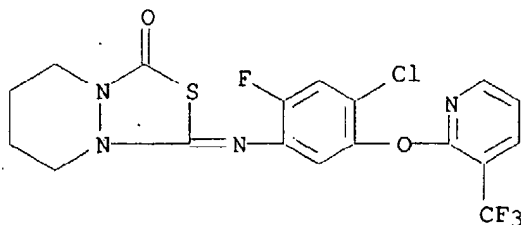
IT 213677-04-4P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of azinyl Ph ethers as herbicides and plant desiccants)

RN 213677-04-4 HCAPLUS

CN 1H,3H-[1,3,4]Thiadiazolo[3,4-a]pyridazin-1-one, 3-[[4-chloro-2-fluoro-5-[[3-(trifluoromethyl)-2-pyridinyl]oxy]phenyl]imino]tetrahydro- (9CI) (CA INDEX NAME)



L97 ANSWER 7 OF 32 HCAPLUS COPYRIGHT 2003 ACS

AN 2000:175534 HCAPLUS

DN 132:222542

TI Preparation of 1-(3-heterocyclylphenyl)isothioureas, -isoureas, -guanidines and -amidines as herbicides

IN Karp, Gary Mitchell

PA American Cyanamid Company, USA

SO Eur. Pat. Appl., 303 pp.

CODEN: EPXXDW

DT Patent

LA English

IC ICM C07D417-12

ICS C07D417-14; C07D413-12; A01N043-76; A01N043-78

CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 5

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|--------------|
| PI | EP 985670 | A1 | 20000315 | EP 1999-306382 | 19990812 <-- |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO | | | | |
| PRAI | US 1998-133872 | | 19980813 | | |
| OS | MARPAT 132:222542 | | | | |
| GI | | | | | |

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title compds. [I; X, Y = H, halo, NO₂, etc.; R = H, alkyl, cycloalkyl, etc.; Z = O, S; A = O, S, SO, SO₂, etc.; B = CR₃₇R₃₈(CR₃₉R₄₀), C(:T), C(:CR₄₁R₄₂); (wherein R₃₇-R₄₀ = H, halo, alkyl, etc.; T = O, S, NH, etc.; R₄₁, R₄₂ = H, alkyl, haloalkyl, etc.); Q = II-IV, etc. (wherein D, D1 = O, S; E = H, halo, alkoxy, etc.; R₄₃, R₄₄ = H, halo, alkyl, etc.; R₄₅, R₄₆ = H, halo, alkyl, etc.)], useful for the control of undesirable plant species, were prepd. E.g., a multi-step synthesis of the title compd. V was given. Biol. data for compds. I were presented.

ST herbicide heterocyclylphenylisothiourea heterocyclylphenylisourea heterocyclylphenylguanidine heterocyclylphenylamidine prepn

IT Herbicides

(prepn. of 1-(3-heterocyclylphenyl)isothioureas, -isoureas, -guanidines and -amidines as herbicides)

IT 260977-23-9P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(319prepn. of 1-(3-heterocyclylphenyl)isothioureas, -isoureas, -guanidines and -amidines as herbicides)

IT 260976-89-4P 260976-90-7P 260976-91-8P
260976-92-9P 260976-93-0P 260976-94-1P
260976-95-2P 260976-96-3P 260976-97-4P
260976-98-5P 260976-99-6P 260977-00-2P
260977-01-3P 260977-02-4P 260977-03-5P
260977-04-6P 260977-05-7P 260977-06-8P
260977-07-9P 260977-08-0P 260977-09-1P
260977-10-4P 260977-11-5P 260977-12-6P
260977-13-7P 260977-14-8P 260977-15-9P
260977-16-0P 260977-17-1P 260977-18-2P
260977-19-3P 260977-20-6P 260977-21-7P
260977-22-8P 260977-24-0P 260977-25-1P
260977-26-2P 260977-27-3P 260977-28-4P
260977-29-5P 260977-30-8P 260977-31-9P
260977-32-0P 260977-33-1P 260977-34-2P
260977-35-3P 260977-36-4P 260977-37-5P
260977-38-6P 260977-39-7P 260977-40-0P
260977-41-1P 260977-42-2P 260977-43-3P
260977-44-4P 260977-45-5P 260977-47-7P
260977-48-8P 260977-49-9P 260977-50-2P
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260978-37-8P 260978-39-0P 260978-40-3P
260978-41-4P 260978-42-5P 260978-44-7P
260978-46-9P 260978-47-0P 260978-48-1P
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260978-60-7P 260978-62-9P 260978-64-1P
260978-65-2P 260978-67-4P 260978-69-6P
260978-71-0P 260978-73-2P 260978-74-3P
260978-76-5P 260978-78-7P 260978-80-1P
260978-82-3P 260978-84-5P 260978-85-6P
260978-86-7P 260978-87-8P 260978-88-9P
260978-89-0P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of 1-(3-heterocyclylphenyl)isothioureas, -isoureas, -guanidines

and -amidines as herbicides)

IT 67-64-1, Acetone, reactions 108-31-6, Maleic anhydride, reactions 399-35-9 762-21-0, Diethyl acetylenedicarboxylate 2426-02-0, 3,4,5,6-Tetrahydrophthalic anhydride 3196-73-4, .beta.-Alanine methyl ester hydrochloride 7524-50-7, L-Phenylalanine methyl ester hydrochloride 24066-82-8, Ethyl isothiocyanatoacetate 34033-44-8, Benzenamine, 2,4-Dichloro-5-nitro- 35661-39-3D, Wang resin-supported 57946-56-2, 4-Chloro-2-fluoroaniline 141860-79-9 260979-25-7 260979-26-8 260979-27-9

RL: RCT (Reactant); RACT (Reactant or reagent)
(prepn. of 1-(3-heterocyclylphenyl)isothioureas, -isoureas, -guanidines and -amidines as herbicides)

IT 59280-72-7P 86987-15-7P 86988-02-5P, 4-Chloro-2-fluoro-5-nitroaniline 86988-03-6P 260978-90-3P 260978-91-4P 260978-92-5P 260978-93-6P 260978-94-7P 260978-95-8P 260978-96-9P 260978-97-0P 260978-98-1P 260978-99-2P 260979-00-8P 260979-01-9P 260979-02-0P 260979-03-1P 260979-04-2P 260979-05-3P 260979-06-4P 260979-07-5P 260979-08-6P 260979-09-7P 260979-10-0P 260979-11-1P 260979-12-2P 260979-13-3P 260979-14-4P 260979-15-5P 260979-16-6P 260979-17-7P 260979-18-8P 260979-19-9P 260979-20-2P 260979-21-3P 260979-22-4P 260979-23-5P 260979-24-6P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of 1-(3-heterocyclylphenyl)isothioureas, -isoureas, -guanidines and -amidines as herbicides)

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Achary, T; J Indian Chem Soc 1975, V52(11), P1065 HCAPLUS
- (2) Duphar International Research B V; EP 0270138 A 1988 HCAPLUS
- (3) Sumitomo Chem Co, Ltd; JP 07304759 A 1996 HCAPLUS

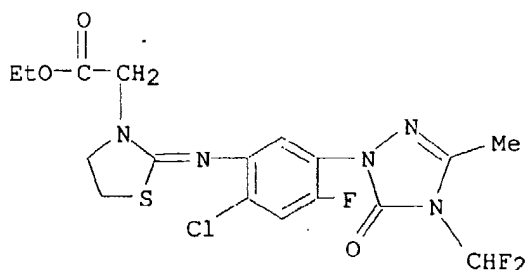
IT 260977-23-9P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(319prepn. of 1-(3-heterocyclylphenyl)isothioureas, -isoureas, -guanidines and -amidines as herbicides)

RN 260977-23-9 HCAPLUS

CN 3-Thiazolidineacetic acid, 2-[[2-chloro-5-[4-(difluoromethyl)-4,5-dihydro-3-methyl-5-oxo-1H-1,2,4-triazol-1-yl]-4-fluorophenyl]imino]-, ethyl ester (9CI) (CA INDEX NAME)



L97 ANSWER 8 OF 32 HCAPLUS COPYRIGHT 2003 ACS

AN 1999:297407 HCAPLUS

DN 130:338118

TI Preparation of heterocyclylbenzenes as herbicides and defoliants.

IN Gupta, Sandeep; Tsukamoto, Masamitsu; Pulman, David A.; Ying, Bai-ping; Wu, Shao-yong

PA ISK Americas Incorporated, USA

SO PCT Int. Appl., 139 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C07D221-02

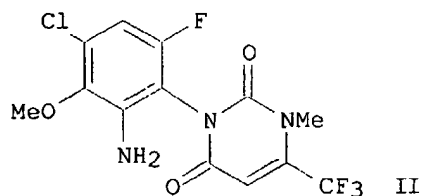
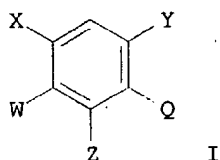
ICS C07D471-02; C07D491-02; C07D498-02; C07D211-70; C07D211-72;
 C07D211-82; C07D211-84; C07D213-62; C07D213-54; C07D213-44;
 C07D237-26; C07D237-28; C07D487-00; C07D401-00; C07D403-00;
 C07D239-02; C07D241-36; C07D471-00; C07D241-02

CC 28-16 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 5

FAN.CNT 2

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|--------------|
| PI | WO 9921837 | A1 | 19990506 | WO 1998-US17197 | 19980821 <-- |
| | W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | | |
| | RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG | | | | |
| | CA 2307815 | AA | 19990506 | CA 1998-2307815 | 19980821 <-- |
| | AU 9895650 | A1 | 19990517 | AU 1998-95650 | 19980821 <-- |
| | AU 749237 | B2 | 20020620 | | |
| | EP 1030843 | A1 | 20000830 | EP 1998-949302 | 19980821 <-- |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI | | | | |
| | JP 2001521027 | T2 | 20011106 | JP 2000-517949 | 19980821 <-- |
| | BR 9814104 | A | 20011226 | BR 1998-14104 | 19980821 <-- |
| | ZA 9809639 | A | 19990426 | ZA 1998-9639 | 19981022 <-- |
| | US 6355799 | B1 | 20020312 | US 2000-530373 | 20000427 |
| | US 2002133007 | A1 | 20020919 | US 2001-930149 | 20010816 |
| PRAI | US 1997-958313 | A2 | 19971027 | | |
| | WO 1998-US17197 | W | 19980821 | | |
| | US 2000-530373 | A3 | 20000427 | | |
| OS | MARPAT 130:338118 | | | | |
| GI | | | | | |



AB Title compds. [I; X = H, halo, NO₂, amino, NHR, NR₂, amide, thioamide, cyano, alkylcarbonyl, alkoxy, carbonyl, alkylsulfonamide, (substituted) alkyl, haloalkyl, alkoxy, haloalkoxy, alkoxy, alkoxy, PhCH₂O, aryloxy, heteroaryloxy; Y = H, halo, NO₂; W = H, OR, SR, NHR, NR₂, CH₂R, CHR₂, CR₃, halo, NO₂, cyano; R = H, (substituted) alkyl, alkenyl, alkynyl, cycloalkyl, aryl, heteroaryl, alkoxy, cycloalkoxy, aryloxy, heteroaryloxy, alkylsulfonyl, PhCH₂, alkylcarbonyl, aryloxy, carbonyl, etc.; Q = (substituted) heterocyclyl; Z = amino, OH, SH, CHO, CO₂H, cyano, alkylcarbonyl, arylcarbonyl, N₃, etc.], were prepd. Thus, 3-(4-chloro-6-fluoro-3-methoxy-2-nitrophenyl)-1-methyl-6-trifluoromethyl-2,4(1H,3H)-pyrimidinedione (prepn. given) was stirred with Fe powder in HOAc to give title compd. (II). II at 7.8 g/ha postemergent gave 100%

control of *Amaranthus retroflexus* and *Abutilon theophrasti*.
 ST heterocyclylbenzene prepn herbicide defoliant; pyrimidinedione prepn
 herbicide defoliant; tetrazolone prepn herbicide defoliant; triazolone
 prepn herbicide defoliant; pyrazole 1 prepn herbicide; phthalimide prepn
 herbicide; pyridiazinone prepn herbicide
 IT Defoliants
 Herbicides
 (prepn. of heterocyclylbenzenes as herbicides and defoliants)
 IT 212755-09-4P 224162-61-2P 224162-62-3P 224163-11-5P 224163-76-2P
 224166-62-5P 224166-80-7P 224167-67-3P
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except
 adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN
 (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT
 (Reactant or reagent); USES (Uses)
 (prepn. of heterocyclylbenzenes as herbicides and defoliants)
 IT 212755-06-1P 212755-08-3P 212902-22-2P 212904-47-7P 212904-48-8P
 224162-36-1P 224162-37-2P 224162-38-3P 224162-39-4P 224162-40-7P
 224162-41-8P 224162-42-9P 224162-43-0P 224162-44-1P 224162-45-2P
 224162-46-3P 224162-47-4P 224162-48-5P 224162-49-6P 224162-50-9P
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 RL: AGR (Agricultural use); BAC (Biological activity or

effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of heterocyclylbenzenes as herbicides and defoliants)

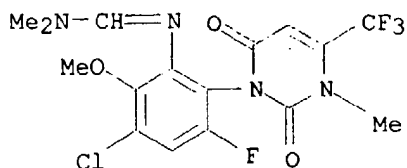
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RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of heterocyclylbenzenes as herbicides and defoliants)

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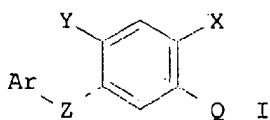
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 (prepn. of heterocyclylbenzenes as herbicides and defoliants)
 IT 75-30-9, Isopropyl iodide 75-45-6, Chlorodifluoromethane 100-53-8,
 Benzyl mercaptan 106-96-7, Propargyl bromide 137-43-9, Cyclopentyl
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 Methyl isocyanate 1489-69-6, Cyclopropanecarboxaldehyde 2243-83-6,
 2-Naphthoyl chloride 2367-91-1, 1-Chloro-2,5-difluorobenzene
 4023-34-1, Cyclopropanecarbonyl chloride 28162-63-2,
 4-Chloro-2-nitrophenyl isocyanate 75458-17-2 84478-41-1 84478-72-8,
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 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
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 (prepn. of heterocyclylbenzenes as herbicides and defoliants)
 RE.CNT 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE
 (1) Agripat, S; FR 1499717 1967 HCAPLUS
 (2) Basf Aktiengesellschaft; WO 9712883 A1 1997 HCAPLUS
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 (11) Wittek, P; Journal of Organic Chemistry 1979, V44(5), P870 HCAPLUS
 (12) Woodard; US 5281571 A 1994 HCAPLUS
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 RL: AGR (Agricultural use); BAC (Biological activity or
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 (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES
 (Uses)
 (prepn. of heterocyclylbenzenes as herbicides and defoliants)
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 (trifluoromethyl)-1(2H)-pyrimidinyl]-5-fluoro-2-methoxyphenyl]-N,N-
 dimethyl- (9CI) (CA INDEX NAME)



AN 1998:635622 HCAPLUS
 DN 129:256468
 TI Preparation of diaryl ethers as herbicides and desiccants
 IN Pulman, David A.; Ying, Bai-ping; Wu, Shao-yong; Gupta, Sandeep;
 Shimoharada, Hiroshi; Tsukamoto, Masamitsu
 PA Ishihara Sangyo Kaisha Americas, Inc., USA
 SO PCT Int. Appl., 130 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM A01N043-40
 ICS A01N043-48; A01N043-50; A01N043-54; A01N043-56; A01N043-58;
 A01N043-653; A01N043-713; A01N043-76; A01N043-78; C07D401-12;
 C07D403-12; C07D417-12
 CC 5-3 (Agrochemical Bioregulators)
 Section cross-reference(s): 28

FAN.CNT 2

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| | US 1997-917682 | A2 | 19970826 | | |
| | US 1997-947900 | A2 | 19971009 | | |
| | WO 1998-US209 | W | 19980114 | | |
| | US 1999-380830 | A3 | 19990910 | | |
| OS | MARPAT 129:256468 | | | | |
| GI | | | | | |



AB The diaryl ethers I [X, Y = H, halo, cyano, nitro or Cl-6 haloalkyl; Z = O or S; Q = (un)substituted N-contg. heterocyclyl; Ar = (un)substituted aryl or heterocyclyl] are prepd. as herbicides and desiccants.
 ST diaryl ether prep herbicide desiccant
 IT Desiccants, plant
 Herbicides

(diaryl ethers)
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 213677-35-1P 213677-36-2P 213677-37-3P 213677-38-4P 213677-39-5P
 213677-40-8P 213677-41-9P 213677-42-0P 213677-43-1P 213677-44-2P
 213677-45-3P 213677-46-4P 213677-47-5P 213677-48-6P 213677-49-7P
 213677-50-0P 213677-51-1P 213677-53-3P 213677-54-4P 213677-55-5P
 213677-56-6P 213677-58-8P 213677-59-9P 213677-60-2P 213677-61-3P
 213677-62-4P 213677-63-5P 213677-64-6P 213677-65-7P 213677-66-8P
 213677-67-9P 213677-68-0P

RL: AGR (Agricultural use); SPN (Synthetic preparation); BIOL
 (Biological study); PREP (Preparation); USES (Uses)
 (prepn. as herbicide and desiccant)

IT 352-91-0, 1-Bromo-3-fluoropropane 372-29-2, Ethyl 3-amino-4,4,4-
 trifluorocrotonate 1722-12-9, 2-Chloropyrimidine 3140-73-6
 5470-18-8, 2-Chloro-3-nitropyridine 17508-17-7, 2,4-Dinitrophenoxamine
 20201-24-5, Ethyl 3-methyl-2-oxobutyrate 65753-47-1,
 2-Chloro-3-trifluoromethylpyridine 70912-52-6 84478-38-6,
 4-Chloro-2-fluoro-5-isopropoxyaniline 84478-72-8, 5-Amino-2-chloro-4-
 fluorophenol 85113-29-7, 4-Chloro-2-fluoro-5-isopropoxyphenyl isocyanate
 114136-62-8 142625-52-3 213677-70-4 213677-74-8
 RL: RCT (Reactant); RACT (Reactant or reagent)

(reactant in prepn. of diaryl ethers as herbicides and desiccants)
 RE.CNT 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD
 RE

(1) Kawamura; JP 05039272 1993 HCAPLUS

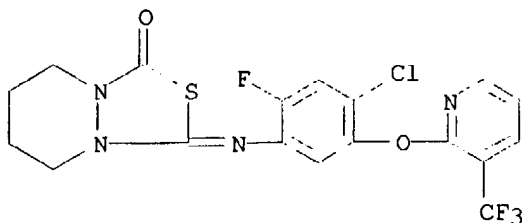
(2) Wenger; EP 255047 1988 HCAPLUS

IT 213677-04-4P

RL: AGR (Agricultural use); SPN (Synthetic preparation); BIOL
(Biological study); PREP (Preparation); USES (Uses)
(prepn. as herbicide and desiccant)

RN 213677-04-4 HCAPLUS

CN 1H,3H-[1,3,4]Thiadiazolo[3,4-a]pyridazin-1-one, 3-[[[4-chloro-2-fluoro-5-
[[3-(trifluoromethyl)-2-pyridinyl]oxy]phenyl]imino]tetrahydro- (9CI) (CA
INDEX NAME)



L97 ANSWER 10 OF 32 HCAPLUS COPYRIGHT 2003 ACS

AN 1998:572286 HCAPLUS

DN 129:199315

TI Preparation of herbicidal 2-[(4-heterocyclylphenoxy)methyl]phenoxy]alkanoates

IN Theodoridis, George

PA USA

SO U.S., 27 pp., Cont.-in-part of U.S. 5,674,810.

CODEN: USXXAM

DT Patent

LA English

IC ICM A01N043-54

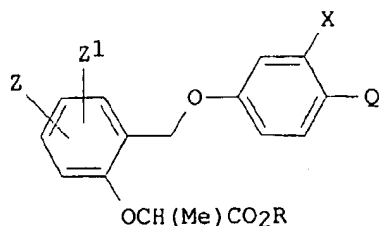
NCL 504136000

CC 5-3 (Agrochemical Bioregulators)

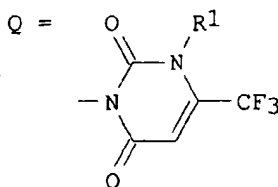
Section cross-reference(s): 28

FAN.CNT 4

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-------------------|------|----------|-----------------|--------------|
| PI | US 5798316 | A | 19980825 | US 1997-865306 | 19970529 <-- |
| | US 5262390 | A | 19931116 | US 1992-935601 | 19920826 <-- |
| | US 5344812 | A | 19940906 | US 1993-107560 | 19930817 <-- |
| | US 5674810 | A | 19971007 | US 1995-523991 | 19950905 <-- |
| PRAI | US 1992-935601 | A2 | 19920826 | | |
| | US 1993-107560 | A2 | 19930817 | | |
| | US 1995-523991 | A2 | 19950905 | | |
| OS | MARPAT 129:199315 | | | | |
| GI | | | | | |



I



IT 51-79-6, Ethyl carbamate 68-12-2, N,N-Dimethylformamide, reactions
75-45-6, Chlorodifluoromethane 100-83-4, 3-Hydroxybenzaldehyde
127-17-3, Pyruvic acid, reactions 141-82-2, Propanedioic acid, reactions
352-11-4, 4-Fluorophenylmethyl chloride 352-91-0, 1-Bromo-3-
fluoropropane 372-29-2, Ethyl 3-Amino-4,4,4-trifluorocrotonate

394-41-2, 3-Fluoro-4-nitrophenol 458-52-6, 2-Fluoro-4-methoxyaniline
 503-38-8, Trichloromethyl chloroformate 623-33-6, Glycine ethyl ester
 hydrochloride 698-27-1, 4-Methylsalicylaldehyde 1655-07-8, Ethyl
 2-cyclohexanonecarboxylate 2420-26-0, 4-Chlorosalicylaldehyde
 2426-02-0, 3,4,5,6-Tetrahydrophthalic anhydride 5445-17-0, Methyl
 2-bromopropionate 26386-88-9, Diphenylphosphoryl azide 28987-50-0
 70044-33-6 127350-92-9, 2-Fluoro-4-nitrophenyl hydrazine 161876-64-8

RL: RCT (Reactant); RACT (Reactant or reagent)

(reactant in prepn. of phoxymethylphenoxyalkanoate deriv. herbicides)

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

(1) Theodoridis; US 5344812 1994 HCAPLUS

IT 154079-90-0P

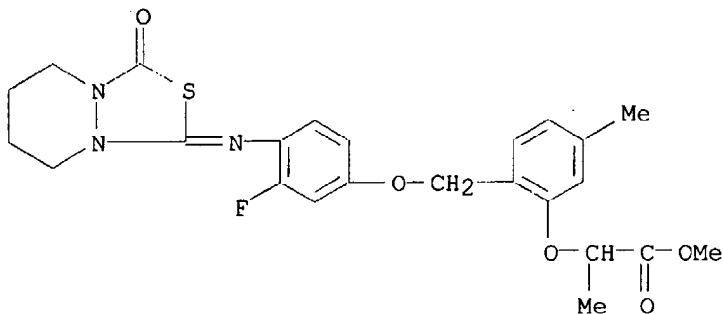
RL: AGR (Agricultural use); SPN (Synthetic preparation); BIOL

(Biological study); PREP (Preparation); USES (Uses)

(prepn. as herbicide)

RN 154079-90-0 HCAPLUS

CN Propanoic acid, 2-[2-[[3-fluoro-4-[(tetrahydro-3-oxo-1H,3H-
 [1,3,4]thiadiazolo[3,4-a]pyridazin-1-ylidene)amino]phenoxy]methyl]-5-
 methylphenoxy]-, methyl ester (9CI) (CA INDEX NAME)



L97 ANSWER 11 OF 32 HCAPLUS COPYRIGHT 2003 ACS

AN 1998:178149 HCAPLUS

DN 128:217387

TI Preparation of 1-(3-heterocyclyphenyl)-s-triazine-2,4,6-triones and related compounds as herbicides.

IN Crews, Alvin Donald, Jr.; Harrington, Philip Mark; Karp, Gary Mitchell; Manfredi, Mark Christopher; Guaciario, Michael Anthony

PA American Cyanamid Co., USA

SO U.S., 69 pp., Cont.-in-part of U.S. Ser. No. 459,868.

CODEN: USXXAM

DT Patent

LA English

IC ICM C07D251-34

ICS A01N043-66

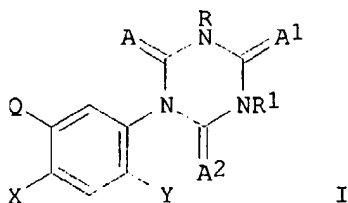
NCL 504227000

CC 28-19 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 5

FAN.CNT 3

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-------------------|------|----------|-----------------|--------------|
| PI | US 5726126 | A | 19980310 | US 1996-756750 | 19961126 <-- |
| PRAI | US 1995-459868 | A2 | 19950602 | | |
| OS | MARPAT 128:217387 | | | | |
| GI | | | | | |



- AB Title compds. [I; X, Y = H, halo, NO₂, cyano, alkyl, haloalkyl, alkoxy, haloalkoxy, SOMR₂; m = 0-2; R = H, alkyl, alkoxyalkyl, alkylcarbonylalkyl, haloalkylcarbonyl, alkoxyalkyl, alkynyl, alkali metal, (substituted) Ph, PhCH₂; R₁ = H, alkenyl, alkynyl, cyano, (substituted) alkyl, Ph; R₂ = alkyl, haloalkyl, (substituted) Ph, PhCH₂; A, Al, A₂ = O, S; Q = specified heterocyclyl], were prepd. Thus, 1-(5-amino-2-chloro-4-fluorophenyl)-3-methyl-s-triazine-2,4,6-trione was heated with 3,4,5,6-tetrahydrophthalic anhydride in HOAc at 100.degree. for 8 h to give 1-[4-chloro-2-fluoro-5-(hexahydro-3-methyl-2,4,6-trioxo-s-triazin-1-yl)phenyl]-1-cyclohexene-1,2-dicarboximide. Several I at 0.500 kg/ha postemergent gave 100% control of Abutilon theophrasti and Ambrosia artemisiifolia.
- ST heterocyclylphenyltriazinetriene prepn herbicide; triazinetriene heterocyclylphenyl prepn herbicide
- IT Herbicides
(prepn. of 1-(3-heterocyclylphenyl)-s-triazine-2,4,6-triones and related compds. as herbicides)
- IT 204384-11-2P
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(prepn. of 1-(3-heterocyclylphenyl)-s-triazine-2,4,6-triones and related compds. as herbicides)
- | | | | | | |
|----|--------------|--------------|--------------|--------------|--------------|
| IT | 185382-46-1P | 185382-47-2P | 185382-48-3P | 185382-49-4P | 185382-50-7P |
| | 185382-51-8P | 185382-52-9P | 185382-53-0P | 185382-54-1P | 185382-55-2P |
| | 185382-56-3P | 185382-57-4P | 185382-58-5P | 185382-59-6P | |
| | 185382-60-9P | 185382-61-0P | 185382-62-1P | 185382-63-2P | |
| | 185382-77-8P | 185382-78-9P | 185382-79-0P | 198418-22-3P | 204383-93-7P |
| | 204383-94-8P | 204383-97-1P | 204383-99-3P | 204384-00-9P | |
| | 204384-01-0P | 204384-02-1P | 204384-03-2P | 204384-04-3P | |
| | 204384-06-5P | 204384-07-6P | 204384-08-7P | | |
| | 204384-09-8P | 204384-16-7P | 204384-17-8P | | |
| | 204384-18-9P | 204384-19-0P | 204384-20-3P | | |
- RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of 1-(3-heterocyclylphenyl)-s-triazine-2,4,6-triones and related compds. as herbicides)
- IT 60-23-1, 2-Aminoethanethiol 74-89-5, Methylamine, reactions 75-30-9, 2-Iodopropane 106-95-6, Allyl bromide, reactions 106-96-7, Propargyl bromide 110-52-1, 1,4-Dibromobutane 302-01-2, Hydrazine, reactions 367-25-9, 2,4-Difluoroaniline 463-71-8, Thiophosgene 624-83-9, Methyl isocyanate 652-39-1 766-39-2, 2,3-Dimethylmaleic anhydride 2426-02-0, 3,4,5,6-Tetrahydrophthalic anhydride 3674-13-3, Ethyl 2,3-dibromopropionate 4114-28-7, 1,2-Bis(ethoxycarbonyl)hydrazine 5292-43-3, tert-Butyl bromoacetate 15862-72-3, Ethyl pipercolate 16686-11-6, 2-(3-Chloropropyl)-1,3-dioxolane 27738-96-1, Carbonisocyanatidic chloride 29921-57-1, Isopropyl bromoacetate 57946-56-2, 4-Chloro-2-fluoroaniline 65303-82-4, 4-Fluoro-3-nitrophenyl isocyanate 86987-15-7 88578-90-9, 2-Chloro-4-fluorobenzamide

124072-89-5 126264-49-1 185382-86-9 185382-87-0 185382-88-1
 185382-91-6 204384-12-3 204384-13-4 204384-14-5
 204384-15-6

RL: RCT (Reactant); RACT (Reactant or reagent)
 (prepn. of 1-(3-heterocyclylphenyl)-s-triazine-2,4,6-triones and related
 compds. as herbicides)

IT 694-06-4P 39718-27-9P 52944-50-0P 58729-31-0P 59280-72-7P
 86988-03-6P 89990-53-4P 185382-65-4P 185382-66-5P 185382-67-6P
 185382-68-7P 185382-69-8P 185382-70-1P 185382-71-2P 185382-72-3P
 185382-73-4P 185382-74-5P 185382-75-6P 185382-76-7P 185382-80-3P
 185382-81-4P 185382-82-5P 185382-83-6P 185382-89-2P 185382-92-7P
 185382-94-9P 204383-95-9P 204383-96-0P 204383-98-2P 204384-05-4P
 204384-10-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. of 1-(3-heterocyclylphenyl)-s-triazine-2,4,6-triones and related
 compds. as herbicides)

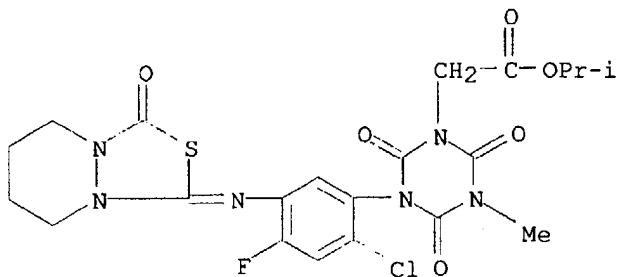
IT 185382-60-9P

RL: AGR (Agricultural use); BAC (Biological activity or
 effector, except adverse); BSU (Biological study, unclassified); SPN
 (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES
 (Uses)

(prepn. of 1-(3-heterocyclylphenyl)-s-triazine-2,4,6-triones and related
 compds. as herbicides)

RN 185382-60-9 HCAPLUS

CN 1,3,5-Triazine-1(2H)-acetic acid, 3-[2-chloro-4-fluoro-5-[(tetrahydro-3-
 oxo-1H,3H-[1,3,4]thiadiazolo[3,4-a]pyridazin-1-
 ylidene)amino]phenyl]tetrahydro-5-methyl-2,4,6-trioxo-, 1-methylethyl
 ester (9CI) (CA INDEX NAME)



L97 ANSWER 12 OF 32 HCAPLUS COPYRIGHT 2003 ACS

AN 1998:31166 HCAPLUS

DN 128:102104

TI Preparation of 1-(3-heterocyclylphenyl)-s-triazine-2,4,6-tri(thi)ones as
 herbicides.

IN Crews, Alvin Donald, Jr.; Harrington, Philip Mark; Karp, Gary Mitchell;
 Manfredi, Mark Christopher; Guaciario, Michael Anthony

PA American Cyanamid Co., USA

SO U.S., 50 pp.

CODEN: USXXAM

DT Patent

LA English

IC ICM C07D251-34

NCL 544222000

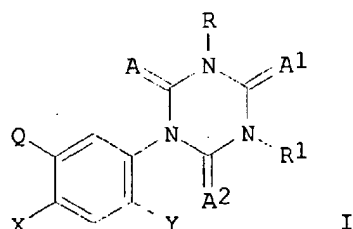
CC 28-19 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 5

FAN.CNT 3

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|-------|-------|-----------------|-------|
| ----- | ----- | ----- | ----- | ----- |

PI US 5705644 A 19980106 US 1996-690270 19960724 <--
 US 5872253 A 19990216 US 1997-896254 19970717 <--
 PRAI US 1995-459567 A3 19950602
 US 1996-690270 A3 19960724
 OS MARPAT 128:102104
 GI



AB Title compds. [I; X, Y = H, halo, NO₂, cyano, alkyl, haloalkyl, alkoxy, haloalkoxy, etc.; Q = specified 5-6 membered heterocyclyl; R = H, alkyl, alkoxyalkyl, alkylcarbonylalkyl, alkenyl, alkynyl, alkali metal, (substituted) Ph, PhCH₂; R₁ = H, alkenyl, alkynyl, cyano, (substituted) alkyl, Ph; A, A₁, A₂ = O, S], were prepd. Thus, Me 3-[2-chloro-5-(1-cyclohexene-1,2-dicarboximido)-4-fluorophenyl]tetrahydro-5-methyl-2,4,6-trioxo-s-triazine-1(2H)-acetate (prepn. given) at 0.125 kg/ha postemergent gave 100% control of Abutilon theophrasti.

ST heterocyclylphenyltriazinetriene prepn herbicide; triazinetrione heterocyclylphenyl prepn herbicide

IT Herbicides

(prepn. of 1-(3-heterocyclylphenyl)-s-triazine-2,4,6-tri(thi)ones as herbicides)

| | | | | | |
|----|---------------------|--------------|--------------|--------------|--------------|
| IT | 185382-46-1P | 185382-47-2P | 185382-48-3P | 185382-49-4P | 185382-50-7P |
| | 185382-51-8P | 185382-52-9P | 185382-53-0P | 185382-54-1P | 185382-55-2P |
| | 185382-56-3P | 185382-57-4P | 185382-58-5P | 185382-59-6P | |
| | 185382-60-9P | 185382-61-0P | 185382-62-1P | 185382-63-2P | |
| | 185382-64-3P | 185382-77-8P | 185382-78-9P | 185382-79-0P | 185382-89-2P |
| | 185382-94-9P | | | | |

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of 1-(3-heterocyclylphenyl)-s-triazine-2,4,6-tri(thi)ones as herbicides)

IT 60-23-1, 2-Aminoethanethiol 75-30-9, 2-Iodopropane 106-96-7, Propargyl bromide 110-52-1, 1,4-Dibromobutane 367-25-9, 2,4-Difluoroaniline 623-33-6, Glycine ethyl ester hydrochloride 635-08-5, 3,4,5,6-Tetrahydrophthalic acid 652-39-1, 3-Fluorophthalic anhydride 1476-23-9, Allyl isocyanate 2426-02-0, 3,4,5,6-Tetrahydrophthalic anhydride 2450-71-7, Propargylamine 3674-13-3, Ethyl 2,3-dibromopropionate 4114-28-7, 1,2-Dicarbethoxyhydrazine 5292-43-3, tert-Butyl bromoacetate 27738-96-1, Carbonisocyanatidic chloride 29921-57-1, Isopropyl bromoacetate 57946-56-2, 4-Chloro-2-fluoroaniline 65303-82-4, 4-Fluoro-3-nitrophenyl isocyanate 88578-90-9, 2-Chloro-4-fluorobenzamide

RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. of 1-(3-heterocyclylphenyl)-s-triazine-2,4,6-tri(thi)ones as herbicides)

| | | | | | |
|----|--------------|--------------|--|--------------|--------------|
| IT | 39718-27-9P | 52944-50-0P | 58729-31-0P | 59280-70-5P | 59280-72-7P |
| | 86987-15-7P | 86988-03-6P | 89990-53-4P, Hexahydropyridazine hydrochloride | | |
| | 95635-45-3P | 95635-47-5P | 185382-65-4P | 185382-66-5P | 185382-67-6P |
| | 185382-68-7P | 185382-69-8P | 185382-70-1P | 185382-71-2P | 185382-72-3P |

185382-73-4P 185382-74-5P 185382-75-6P 185382-76-7P 185382-80-3P
 185382-81-4P 185382-82-5P 185382-83-6P 185382-84-7P 185382-85-8P
 185382-86-9P 185382-87-0P 185382-88-1P 185382-90-5P 185382-91-6P
 185382-92-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of 1-(3-heterocyclylphenyl)-s-triazine-2,4,6-tri(thi)ones as herbicides)

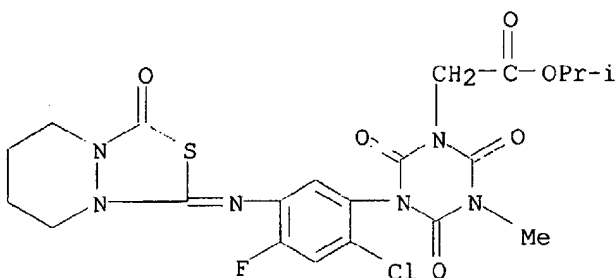
IT 185382-60-9P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of 1-(3-heterocyclylphenyl)-s-triazine-2,4,6-tri(thi)ones as herbicides)

RN 185382-60-9 HCAPLUS

CN 1,3,5-Triazine-1(2H)-acetic acid, 3-[2-chloro-4-fluoro-5-[(tetrahydro-3-oxo-1H,3H-[1,3,4]thiadiazolo[3,4-a]pyridazin-1-ylidene)amino]phenyl]tetrahydro-5-methyl-2,4,6-trioxo-, 1-methylethyl ester (9CI) (CA INDEX NAME)



L97 ANSWER 13 OF 32 HCAPLUS COPYRIGHT 2003 ACS

AN 1997:689564 HCAPLUS

DN 127:358879

TI Preparation of 1-(3-heterocyclylphenyl)-s-triazine-2,4,6-oxo- or -thiotrione herbicidal agents

IN Crews, Alvin Donald, Jr.; Karp, Gary Mitchell; Manfredi, Mark Christopher; Guaciaro, Michael Anthony

PA American Cyanamid Company, USA

SO U.S., 49 pp.

CODEN: USXXAM

DT Patent

LA English

IC ICM C07D251-34

NCL 544222000

CC 28-19 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 5

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|--|------|----------|-----------------|--------------|
| PI | US 5679791 | A | 19971021 | US 1996-686288 | 19960725 <-- |
| PRAI | US 1996-686288 | | 19960725 | | |
| OS | CASREACT 127:358879; MARPAT 127:358879 | | | | |
| GI | | | | | |

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB The title compds. [I; R = H, C1-6 alkyl, C2-12 alkoxyalkyl, etc.; R1 = H, C3-6 alkenyl, C3-6 alkynyl, etc.; R11, R12 = H, (un)substituted C1-6 alkyl, C3-6 cycloalkyl; R11R12 = (un)substituted 4-7 membered (un)satd. ring optionally interrupted by O, S(O)r, or N; A, A1, A2 = O, S; r = 0-2; X, Y = H, halo, NO2, CN], useful for the control of undesirable plant species, were prep'd. by reacting an isothiocyanate II with a hydrazine R12NHNHR11 followed by reaction of the resulting intermediate III with phosgene or a phosgene equiv. in the presence of a base. Thus, the title comp'd. IV showed 100% efficacy against, e.g., common lambsquarters in preemergence test at 0.125 kg/ha.

ST herbicide heterocyclylphenyltrioxotriazine heterocyclylphenyltrithioxotriazine prepn; heterocyclization thiadiazole formation

IT Herbicides

Heterocyclization

(prepn. of 1-(3-heterocyclylphenyl)-s-triazine-2,4,6-oxo- or -thiotrione herbicidal agents)

IT 185382-46-1P 185382-47-2P 185382-48-3P 185382-49-4P 185382-50-7P
185382-51-8P 185382-52-9P 185382-53-0P 185382-54-1P 185382-55-2P
185382-56-3P 185382-57-4P 185382-58-5P 185382-59-6P
185382-60-9P 185382-61-0P 185382-62-1P 185382-63-2P
185382-64-3P 185382-77-8P 185382-78-9P 185382-79-0P 198418-22-3P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of 1-(3-heterocyclylphenyl)-s-triazine-2,4,6-oxo- or -thiotrione herbicidal agents)

IT 75-30-9, 2-Iodopropane 106-96-7, Propargyl bromide 110-52-1
367-25-9, 2,4-Difluoroaniline 623-33-6, Glycine ethyl ester
hydrochloride 652-39-1, 3-Fluorophthalic anhydride 1476-23-9, Allyl
isocyanate 2426-02-0, 3,4,5,6-Tetrahydrophthalic anhydride 2450-71-7,
Propargylamine 3674-13-3, Ethyl 2,3-dibromopropionate 4114-28-7,
1,2-Dicarbethoxyhydrazine 5292-43-3, tert-Butyl bromoacetate
29921-57-1, Isopropyl bromoacetate 57946-56-2, 4-Chloro-2-fluoroaniline
65303-82-4, 4-Fluoro-3-nitrophenyl isocyanate 88578-90-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. of 1-(3-heterocyclylphenyl)-s-triazine-2,4,6-oxo- or -thiotrione herbicidal agents)

IT 39718-27-9P 52944-50-0P 58729-31-0P 59280-70-5P 59280-72-7P
86987-15-7P 86988-03-6P 89990-53-4P 95635-45-3P 95635-47-5P
185382-65-4P 185382-66-5P 185382-67-6P 185382-68-7P 185382-69-8P
185382-70-1P 185382-71-2P 185382-72-3P 185382-73-4P 185382-74-5P
185382-75-6P 185382-76-7P 185382-80-3P 185382-81-4P 185382-82-5P
185382-83-6P 185382-84-7P 185382-85-8P 185382-86-9P 185382-87-0P
185382-88-1P 185382-89-2P 185382-90-5P 185382-91-6P 185382-92-7P
185382-94-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of 1-(3-heterocyclylphenyl)-s-triazine-2,4,6-oxo- or -thiotrione herbicidal agents)

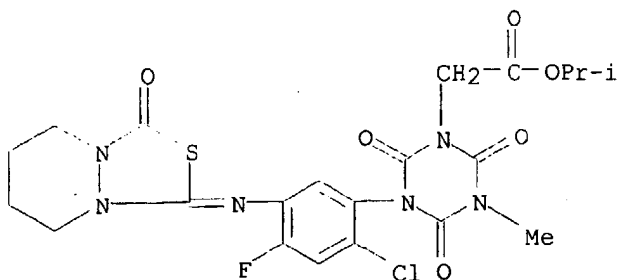
IT 185382-60-9P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of 1-(3-heterocyclylphenyl)-s-triazine-2,4,6-oxo- or -thiotrione herbicidal agents)

RN 185382-60-9 HCAPLUS

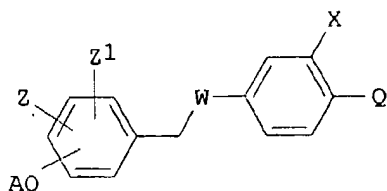
CN 1,3,5-Triazine-1(2H)-acetic acid, 3-[2-chloro-4-fluoro-5-[(tetrahydro-3-oxo-1H,3H-[1,3,4]thiadiazolo[3,4-a]pyridazin-1-ylidene)amino]phenyl]tetrahydro-5-methyl-2,4,6-trioxo-, 1-methylethyl ester (9CI) (CA INDEX NAME)



L97 ANSWER 14 OF 32 HCAPLUS COPYRIGHT 2003 ACS
 AN 1997:248022 HCAPLUS
 DN 126:221749
 TI Preparation of herbicidal 2-[(4-heterocyclic-phenoxy)methyl]phenoxy]alkanoates
 IN Theodoridis, George
 PA FMC Corp., USA
 SO PCT Int. Appl., 90 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM A01N043-54
 ICS C07D239-54
 CC 5-2 (Agrochemical Bioregulators)
 Section cross-reference(s): 28

FAN.CNT 4

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-------------------|--|----------|-----------------|--------------|
| PI | WO 9708953 | A1 | 19970313 | WO 1996-US14193 | 19960905 <-- |
| | W: | AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM | | | |
| | RW: | KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN | | | |
| | US 5674810 | A | 19971007 | US 1995-523991 | 19950905 <-- |
| | AU 9670140 | A1 | 19970327 | AU 1996-70140 | 19960905 <-- |
| PRAI | US 1995-523991 | A | 19950905 | | |
| | WO 1996-US14193 | W | 19960905 | | |
| OS | MARPAT 126:221749 | | | | |
| GI | | | | | |



I

AB The title herbicidal compds. are I [A = alkanooate deriv. bonded to the phenoxy O at the .alpha.-C; Q = 4-difluoromethyl-4,5-dihydro-3-methyl-1,2,4-triazol-5(1H)-on-1-yl, 3,4,5,6-tetrahydrophthalimid-1-yl, 1-(1-methylethyl)imidazolidin-2,4-dion-3-yl, 1,4-dihydro-4-(3-

fluoropropyl)-5H-tetrazol-5-on-1-yl, 3-chloro-4,5,6,7-tetrahydroindazol-2-yl, 4-methyl-1,2,4-triazine-3,5-dion-2-yl, 8-thia-1,6-diazabicyclo[4.3.0]nonane-7-on-9-ylimino or 1-methyl-6-trifluoromethyl-2,4-pyrimidinedione-3-yl; X = H, Me, F or Cl; W = O or S; Z = H, F, Cl, Br, lower alkyl, or methoxy; Z1 = H, F or Cl; AO may be in the 2-, 3-, or 4-position of the Ph ring].

ST herbicide heterocyclic phenoxymethylphenoxyalkanoate deriv prepn
IT Herbicides
(4-methylsalicylaldehyde)

IT 399-95-1P, 4-Amino-3-fluorophenol 68285-84-7P 154079-77-3P
RL: AGR (Agricultural use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(intermediate in prepn. of herbicidal heterocyclic phenoxymethylphenoxyalkanoates)

IT 49754-15-6P, Malonyldiurethane 70044-34-7P 70129-95-2P 115256-63-8P
119162-25-3P 127350-93-0P 127350-94-1P 127350-95-2P 127350-96-3P
154079-76-2P 154079-79-5P 154079-80-8P 154079-81-9P 154079-91-1P
154079-92-2P 154079-93-3P 154079-94-4P 154079-96-6P 154079-97-7P
154079-98-8P 154079-99-9P 154080-00-9P, 2-Fluoro-4-methoxyphenylhydrazine 154080-04-3P, 4-Isopropoxy-2-fluoroaniline
154080-05-4P 154080-07-6P 154080-08-7P 154080-09-8P 154080-10-1P
154080-11-2P 154080-12-3P 154080-13-4P 154080-15-6P 154080-16-7P
154080-17-8P 154080-18-9P 154080-20-3P 154080-21-4P 158756-11-7P
158756-13-9P 158756-14-0P 158756-15-1P 158756-16-2P 188359-69-5P
188359-70-8P 188359-76-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate in prepn. of herbicidal heterocyclic phenoxymethylphenoxyalkanoates)

IT 154079-74-0P 154079-78-4P 154079-82-0P 154079-83-1P 154079-84-2P
154079-85-3P 154079-86-4P 154079-87-5P 154079-88-6P 154079-89-7P
154079-90-0P 154080-29-2P 154080-44-1P 154080-45-2P
154080-46-3P 154080-47-4P 154080-48-5P 154080-49-6P 154080-50-9P
154080-51-0P 154080-52-1P 154080-53-2P 154080-54-3P 154080-55-4P
154080-56-5P 154080-57-6P 154080-58-7P 154080-61-2P 154080-62-3P
154080-63-4P 154080-64-5P 154080-82-7P 154080-83-8P 154080-84-9P
154080-85-0P 154080-89-4P 154080-90-7P 154080-91-8P 158755-44-3P
158755-45-4P 158755-46-5P 158755-47-6P 158755-48-7P 158755-49-8P
158755-50-1P 158755-51-2P 158755-52-3P 158755-53-4P 158755-54-5P
158755-55-6P 158755-56-7P 158755-57-8P 158755-58-9P 158755-59-0P
158755-60-3P 158755-61-4P 158755-62-5P 158755-63-6P 158755-64-7P
158755-65-8P 158755-66-9P 158755-67-0P 158755-68-1P 158755-69-2P
158755-70-5P 158755-71-6P 158755-72-7P 158755-73-8P 158755-74-9P
158755-75-0P 158755-76-1P 158755-77-2P 158755-78-3P 158755-79-4P
158755-80-7P 158755-81-8P 158755-82-9P 158755-83-0P 158755-84-1P
158755-85-2P 158755-86-3P 158755-87-4P 158755-88-5P 158755-89-6P
158755-90-9P 158755-91-0P 158755-92-1P 158755-93-2P 158755-94-3P
158755-95-4P 158755-96-5P 158755-97-6P 158755-98-7P 158755-99-8P
158756-00-4P 158756-01-5P 158756-02-6P 158756-03-7P 158756-04-8P
158756-05-9P 158756-06-0P 158756-07-1P 158756-08-2P 158756-09-3P
RL: AGR (Agricultural use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. as herbicide)

IT 96-32-2, Methyl bromoacetate 100-83-4, 3-Hydroxybenzaldehyde 123-08-0,
4-Hydroxybenzaldehyde 127-17-3, reactions 352-11-4,
4-Fluorophenylmethyl chloride 352-91-0, 1-Bromo-3-fluoropropane
394-41-2, 3-Fluoro-4-nitrophenol 458-52-6, 2-Fluoro-4-methoxyaniline
503-38-8, Trichloromethyl chloroformate 623-33-6, Glycine ethyl ester
hydrochloride 698-27-1, 4-Methylsalicylaldehyde 1655-07-8, Ethyl
2-cyclohexanonecarboxylate 2420-26-0 2426-02-0 5445-17-0, Methyl
2-bromopropionate 127350-92-9, 2-Fluoro-4-nitrophenylhydrazine
127684-18-8 158756-18-4
RL: RCT (Reactant); RACT (Reactant or reagent)

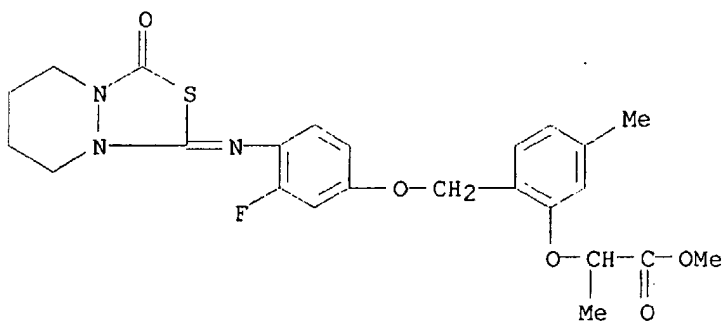
(reagent in prepn. of herbicidal heterocyclic
phenoxyethylphenoxymethoxyalkanoates)

IT 28987-50-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(redn. of)

IT 154079-90-0P
RL: AGR (Agricultural use); SPN (Synthetic preparation); BIOL
(Biological study); PREP (Preparation); USES (Uses)
(prepn. as herbicide)

RN 154079-90-0 HCAPLUS

CN Propanoic acid, 2-[2-[[3-fluoro-4-[(tetrahydro-3-oxo-1H,3H-
[1,3,4]thiadiazolo[3,4-a]pyridazin-1-ylidene)amino]phenoxy)methyl]-5-
methylphenoxy]-, methyl ester (9CI) (CA INDEX NAME)



L97 ANSWER 15 OF 32 HCAPLUS COPYRIGHT 2003 ACS

AN 1997:53895 HCAPLUS

DN 126:74873

TI Preparation of 1-(3-heterocyclylphenyl)-s-triazine-2,4,6-oxo(or
thio)trione as herbicidal agents

IN Crews, Alvin Donald, Jr.; Harrington, Philip Mark; Karp, Gary Mitchell;
Manfredi, Mark Christopher; Guaciario, Michael Anthony

PA American Cyanamid Company, USA

SO Eur. Pat. Appl., 155 pp.
CODEN: EPXXDW

DT Patent

LA English

IC ICM C07D403-10
ICS C07D513-04; C07D251-30; C07D251-34; C07D251-38; C07D207-44;
C07D209-48; A01N043-64

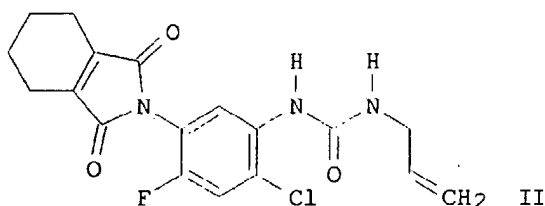
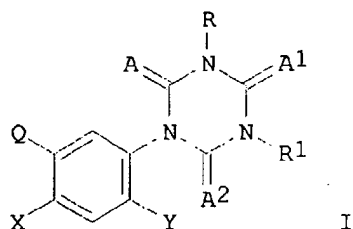
ICI C07D513-04, C07D279-00, C07D235-00; C07D513-04, C07D285-00, C07D237-00

CC 28-19 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 5

FAN.CNT 3

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|----|--|------|----------|-----------------|--------------|
| PI | EP 745599 | A2 | 19961204 | EP 1996-303836 | 19960529 <-- |
| | EP 745599 | A3 | 19970305 | | |
| | R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE | | | | |
| | US 5610120 | A | 19970311 | US 1995-458639 | 19950602 <-- |
| | US 5612481 | A | 19970318 | US 1995-459567 | 19950602 <-- |
| | US 5616706 | A | 19970401 | US 1995-458211 | 19950602 <-- |
| | US 5659031 | A | 19970819 | US 1995-458324 | 19950602 <-- |
| | JP 09025270 | A2 | 19970128 | JP 1996-156315 | 19960529 <-- |
| | AU 9654603 | A1 | 19961212 | AU 1996-54603 | 19960530 <-- |
| | AU 725805 | B2 | 20001019 | | |
| | ZA 9604442 | A | 19971209 | ZA 1996-4442 | 19960530 <-- |

| | | | | | |
|------|--------------------------------------|----|----------|-----------------|--------------|
| | CA 2177876 | AA | 19961203 | CA 1996-2177876 | 19960531 <-- |
| | CN 1138580 | A | 19961225 | CN 1996-105323 | 19960531 <-- |
| | BR 9602563 | A | 19981006 | BR 1996-2563 | 19960531 <-- |
| PRAI | US 1995-458211 | A | 19950602 | | |
| | US 1995-458324 | A | 19950602 | | |
| | US 1995-458639 | A | 19950602 | | |
| | US 1995-458920 | A | 19950602 | | |
| | US 1995-459567 | A | 19950602 | | |
| | US 1995-459868 | A | 19950602 | | |
| | US 1995-459919 | A | 19950602 | | |
| | US 1995-459950 | A | 19950602 | | |
| OS | CASREACT 126:74873; MARPAT 126:74873 | | | | |
| GI | | | | | |



- AB The title compds. [I; X, Y = H, halo, NO₂, etc.; R = H, C1-6 alkyl, C2-12 alkoxyalkyl, etc.; R1 = H, C3-6 alkenyl, C3-6 alkynyl, etc.; Q = heterocyclyl; A, A1, A2 = O, S], useful for the control of undesirable plant species, were prepd. Thus, cyclization of urea II with N-(chlorocarbonyl)isocyanate in PhMe afforded I [X = F; Y = Cl; R = H; R1 = CH₂CH:CH₂; Q = 1-cyclohexene-1,2-dicarboximido; A = A1 = A2 = O] which showed 91-99% control of Galium Aparine and Chenopodium Album, L. in postemergence herbicidal evaluation at 0.500 kg/ha.
- ST herbicide heterocyclylphenyltriazinetriene heterocyclylphenyltriazinetriethione prepn; heterocyclization triazine formation; triazinetrione heterocyclylphenyl prepn herbicide; triazinetrithione heterocyclylphenyl prepn herbicide
- IT Herbicides
Heterocyclization
(prepn. of 1-(3-heterocyclylphenyl)-s-triazine-2,4,6-oxo(or thio)trione as herbicidal agents)
- IT 185382-46-1P 185382-47-2P 185382-48-3P 185382-49-4P 185382-50-7P
185382-51-8P 185382-52-9P 185382-53-0P 185382-54-1P 185382-55-2P
185382-56-3P 185382-57-4P 185382-58-5P 185382-59-6P
185382-60-9P 185382-61-0P 185382-62-1P 185382-63-2P
185382-64-3P
- RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES

(Uses)

- (prepn. of 1-(3-heterocyclylphenyl)-s-triazine-2,4,6-oxo(or thio)trione as herbicidal agents)
- IT 67-63-0, 2-Propanol, reactions 75-30-9, 2-Iodopropane 106-96-7, Propargyl bromide 110-52-1, 1,4-Dibromobutane 367-25-9 623-33-6, Glycine ethyl ester hydrochloride 652-39-1, 3-Fluorophthalic anhydride 1476-23-9, Allyl isocyanate 2426-02-0 2447-79-2, 2,4-Dichlorobenzamide 2450-71-7, Propargylamine 3674-13-3, Ethyl 2,3-Dibromopropionate 4114-28-7, 1,2-Dicarbethoxyhydrazine 5292-43-3, tert-Butyl bromoacetate 29921-57-1, Isopropyl bromoacetate 57946-56-2, 4-Chloro-2-fluoroaniline 65303-82-4, 4-Fluoro-3-nitrophenyl isocyanate 88578-90-9, 2-Chloro-4-fluorobenzamide

RL: RCT (Reactant); RACT (Reactant or reagent)

- (prepn. of 1-(3-heterocyclylphenyl)-s-triazine-2,4,6-oxo(or thio)trione as herbicidal agents)

- IT 5310-94-1P 39718-27-9P 52944-50-0P 58729-31-0P 59280-70-5P
59280-72-7P 86987-15-7P 86988-03-6P 89990-53-4P 95635-45-3P
95635-47-5P 185382-65-4P 185382-66-5P 185382-67-6P 185382-68-7P
185382-69-8P 185382-70-1P 185382-71-2P 185382-72-3P 185382-73-4P
185382-74-5P 185382-75-6P 185382-76-7P 185382-77-8P 185382-78-9P
185382-79-0P 185382-80-3P 185382-81-4P 185382-82-5P 185382-83-6P
185382-84-7P 185382-85-8P 185382-86-9P 185382-87-0P 185382-88-1P
185382-89-2P 185382-90-5P 185382-91-6P 185382-92-7P 185382-94-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

- (prepn. of 1-(3-heterocyclylphenyl)-s-triazine-2,4,6-oxo(or thio)trione as herbicidal agents)

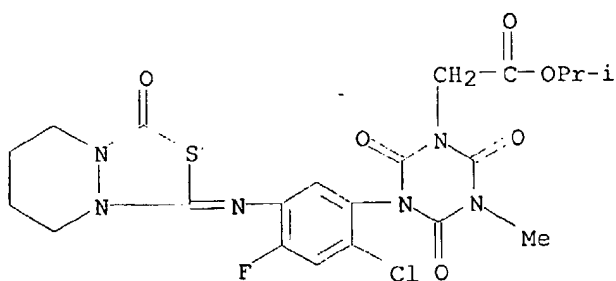
IT 185382-60-9P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

- (prepn. of 1-(3-heterocyclylphenyl)-s-triazine-2,4,6-oxo(or thio)trione as herbicidal agents)

RN 185382-60-9 HCAPLUS

CN 1,3,5-Triazine-1(2H)-acetic acid, 3-[2-chloro-4-fluoro-5-[(tetrahydro-3-oxo-1H,3H-[1,3,4]thiadiazolo[3,4-a]pyridazin-1-ylidene)amino]phenyl]tetrahydro-5-methyl-2,4,6-trioxo-, 1-methylethyl ester (9CI) (CA INDEX NAME)



L97 ANSWER 16 OF 32 HCAPLUS COPYRIGHT 2003 ACS

AN 1996:298068 HCAPLUS

DN 124:343312

TI Preparation of 5-phenylimino-1,5-diaza-3-thiabicycloalkane-2-ones as herbicides

IN Ota, Chikako; Natsume, Bunji

PA Mitsubishi Chemical Corporation, Japan

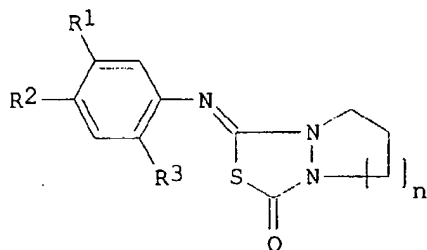
SO Eur. Pat. Appl., 14 pp.

CODEN: EPXXDW

DT Patent
 LA English
 IC ICM C07D285-12
 ICS C07D513-04; C07C337-06; A01N043-90
 ICI C07D513-04, C07D285-00, C07D231-00; C07D513-04, C07D285-00, C07D237-00
 CC 28-10 (Heterocyclic Compounds (More Than One Hetero Atom))
 Section cross-reference(s): 5

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-------------------|------|----------|-----------------|--------------|
| PI | EP 698604 | A1 | 19960228 | EP 1995-112944 | 19950817 <-- |
| | R: DE, FR, GB | | | | |
| | JP 08059642 | A2 | 19960305 | JP 1994-196873 | 19940822 <-- |
| | US 5705651 | A | 19980106 | US 1995-517676 | 19950822 <-- |
| PRAI | JP 1994-196873 | | 19940822 | | |
| OS | MARPAT 124:343312 | | | | |
| GI | | | | | |



I

AB Title compds. (I; R1 = H, inert substituent; R2 = halo, NO2, Me, OMe; R3 = H or halo; n = 1-3) were prepd. as herbicides (no data). Thus, 5-(methoxycarbonylmethylthio)-4-chloro-2-fluorophenyl isothiocyanate was condensed with H2NNHCHO and the cyclized product converted in 2 steps to I (R1 = SCH2CO2Me, R2 = Cl, R3 = F, n = 1).

ST azathiabicycloalkanone phenylimino prepn herbicide

IT Herbicides

(5-phenylimino-1,5-diaza-3-thiabicycloalkan-2-ones)

IT 117337-19-6P 146605-54-1P 153053-77-1P 176506-47-1P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of 5-phenylimino-1,5-diaza-3-thiabicycloalkan-2-ones as herbicides)

IT 109-64-8, 1,3-Dibromopropane 110-52-1, 1,4-Dibromobutane 131533-23-8 176506-48-2

RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. of 5-phenylimino-1,5-diaza-3-thiabicycloalkan-2-ones as herbicides)

IT 176506-41-5P 176506-42-6P 176506-43-7P 176506-44-8P 176506-45-9P 176506-46-0P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of 5-phenylimino-1,5-diaza-3-thiabicycloalkan-2-ones as herbicides)

IT 153053-77-1P

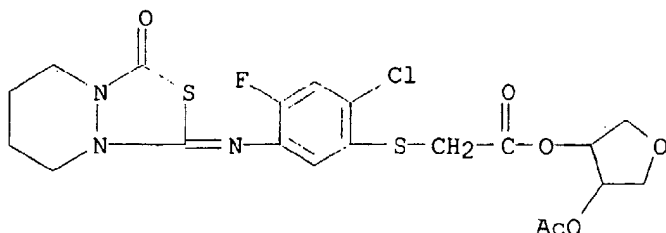
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of 5-phenylimino-1,5-diaza-3-thiabicycloalkan-2-ones as

herbicides)

RN 153053-77-1 HCAPLUS

CN Acetic acid, [[2-chloro-4-fluoro-5-[(tetrahydro-3-oxo-1H,3H-[1,3,4]thiadiazolo[3,4-a]pyridazin-1-ylidene)amino]phenyl]thio]-, 4-(acetyloxy)tetrahydro-3-furanyl ester (9CI) (CA INDEX NAME)



L97 ANSWER 17 OF 32 HCAPLUS COPYRIGHT 2003 ACS

AN 1996:147746 HCAPLUS

DN 124:202239

TI Preparation of iminothiazolidinone derivatives as herbicides

IN Takano, Minoru; Enomoto, Masayuki; Saito, Kazuo; Kizawa, Satoru

PA Sumitomo Chemical Co, Japan

SO Jpn. Kokai Tokkyo Koho, 26 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C07D277-54

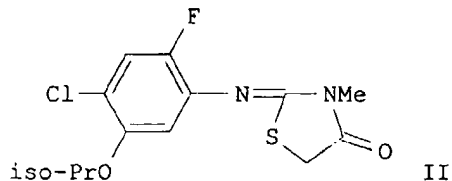
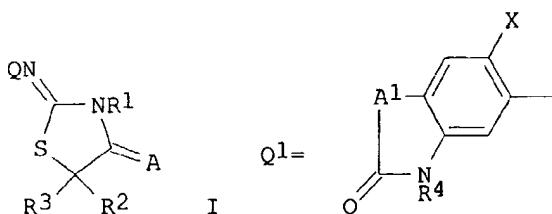
ICS A01N043-78; A01N043-84; C07D417-12

CC 28-7 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 5

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-------------------|------|----------|-----------------|--------------|
| PI | JP 07304759 | A2 | 19951121 | JP 1994-99783 | 19940513 <-- |
| PRAI | JP 1994-99783 | | 19940513 | | |
| OS | MARPAT 124:202239 | | | | |
| GI | | | | | |



AB The title compds. I [R1 - R3 = (halo)alkyl, etc.; A = O, etc.; Q = Q1, etc.; A1 = O, etc.; R4 = (halo)alkyl, (halo)alkenyl, etc.; X = H, Cl,

etc.] are claimed. The title compd. II (prepn. given) at 500 g/ha gave excellent control of *Abutilon avicennae*.

ST iminothiazolone prepn herbicide

IT Herbicides

(prepn. of iminothiazolidinone derivs. as herbicides)

IT 155560-61-5P 174212-18-1P 174212-19-2P 174212-20-5P 174212-21-6P
 174212-22-7P 174212-23-8P 174212-24-9P 174212-25-0P 174212-26-1P
 174212-27-2P 174212-28-3P 174212-29-4P 174212-30-7P 174212-31-8P
 174212-32-9P 174212-33-0P 174212-34-1P 174212-35-2P 174212-36-3P
 174212-37-4P 174212-38-5P 174212-39-6P 174212-40-9P 174212-41-0P
 174212-42-1P 174212-43-2P 174212-44-3P 174212-45-4P
 174212-46-5P 174212-47-6P 174212-48-7P 174212-49-8P
 174212-50-1P 174212-51-2P 174212-52-3P 174212-53-4P 174212-54-5P
 174212-55-6P 174212-56-7P 174212-57-8P 174212-58-9P 174212-59-0P
 174212-60-3P 174212-61-4P 174212-62-5P 174212-63-6P 174212-64-7P
 174212-65-8P 174212-66-9P 174212-67-0P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of iminothiazolidinone derivs. as herbicides)

IT 78-88-6, 2,3-Dichloropropene 79-08-3, Bromoacetic acid 79-11-8, Chloroacetic acid, reactions 96-34-4, Methyl chloroacetate 106-96-7, Propargyl bromide 107-14-2, Chloroacetonitrile 107-30-2, Chloromethyl methyl ether 535-11-5, Ethyl .alpha.-bromopropionate 2740-97-8 3518-65-8, Chloromethylsulfonyl chloride 174212-70-5 174212-71-6

RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. of iminothiazolidinone derivs. as herbicides)

IT 174212-68-1P 174212-69-2P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

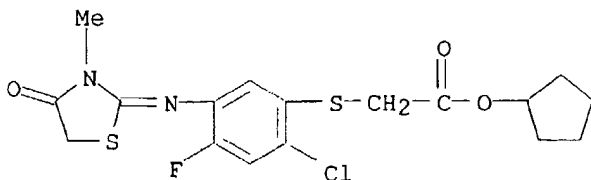
(prepn. of iminothiazolidinone derivs. as herbicides)

IT 174212-43-2P
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of iminothiazolidinone derivs. as herbicides)

RN 174212-43-2 HCAPLUS

CN Acetic acid, [[2-chloro-4-fluoro-5-[(3-methyl-4-oxo-2-thiazolidinylidene)amino]phenyl]thio]-, cyclopentyl ester (9CI) (CA INDEX NAME)



L97 ANSWER 18 OF 32 HCAPLUS COPYRIGHT 2003 ACS

AN 1995:921908 HCAPLUS

DN 123:340145

TI Preparation 2-phenylthiazolidinone herbicides

IN Linker, Karl-Heinz; Findeisen, Kurt; Haas, Wilhelm; Schallner, Otto; Wroblowsky, Heinz-Juergen; Dollinger, Markus; Santel, Hans-Joachim

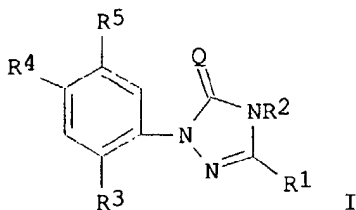
PA Bayer A.-G., Germany

SO Ger. Offen., 22 pp.

CODEN: GWXXBX

DT Patent
 LA German
 IC C07D249-12
 ICS C07D409-14; C07D405-12; C07D401-12; C07D409-12; A01N043-653;
 A01N047-06; A01N047-30; A01N057-18; A01N047-20; C07F009-40;
 C07F009-6518
 ICA C07D521-00
 ICI C07D249-12, C07D333-38, C07D307-04, C07D309-12, C07D307-34, C07D213-04
 CC 28-10 (Heterocyclic Compounds (More Than One Hetero Atom))
 Section cross-reference(s): 5
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|--------------|
| PI | DE 4405614 | A1 | 19950824 | DE 1994-4405614 | 19940222 <-- |
| | WO 9522532 | A1 | 19950824 | WO 1995-EP466 | 19950209 <-- |
| | W: AU, BB, BG, BR, BY, CA, CN, CZ, FI, HU, JP, KR, KZ, LK, NO, NZ, PL, RO, RU, SK, UA, US | | | | |
| | RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | | |
| | CA 2183641 | AA | 19950824 | CA 1995-2183641 | 19950209 <-- |
| | AU 9518084 | A1 | 19950904 | AU 1995-18084 | 19950209 <-- |
| | EP 746550 | A1 | 19961211 | EP 1995-909695 | 19950209 <-- |
| | R: BE, CH, DE, DK, ES, FR, GB, IT, LI, NL | | | | |
| | CN 1150421 | A | 19970521 | CN 1995-191743 | 19950209 <-- |
| | BR 9506928 | A | 19970909 | BR 1995-6928 | 19950209 <-- |
| | JP 09509923 | T2 | 19971007 | JP 1995-521556 | 19950209 <-- |
| PRAI | DE 1994-4405614 | | 19940222 | | |
| | WO 1995-EP466 | | 19950209 | | |
| OS, | MARPAT 123:340145 | | | | |
| GI | | | | | |



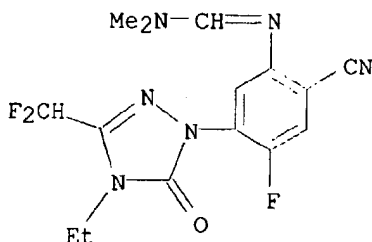
AB The title compds. [I; Q = O, S; R1 = haloalkyl; R2 = H, NH2, CN, alkyl, alkenyl, alkynyl, haloalkenyl, (un)substituted cycloalkyl etc.; R3 = H; halogen; R4 = CN, NO2; R5 = isocyano, thiocyanato, sulfo, halosulfonyl, alkylaminooxy, etc.], useful as herbicides for controlling unwanted plants, are prepd. Thus, 2-(2-fluoro-4-cyano-5-aminophenyl)-4-ethyl-5-trifluoromethyl-2,4-dihydro-3H-1,2,4-triazol-3-one was amidated with Me3CCOCl, producing 2-[2-fluoro-4-cyano-5-(tert-butylcarbonylamino)phenyl]-4-ethyl-5-trifluoromethyl-2,4-dihydro-3H-1,2,4-triazol-3-one, m.p. 149.degree..

ST phenyltriazolinone prepn herbicide; triazolinone phenyl
 IT Herbicides

(2-phenyltriazolinones)

| | | | | | |
|----|--------------|--------------|--------------|--------------|--------------|
| IT | 157278-92-7P | 170366-26-4P | 170366-27-5P | 170366-28-6P | 170366-29-7P |
| | 170366-30-0P | 170366-31-1P | 170366-32-2P | 170366-33-3P | 170366-34-4P |
| | 170366-35-5P | 170366-36-6P | 170366-37-7P | 170366-38-8P | 170366-39-9P |
| | 170366-40-2P | 170366-41-3P | 170366-42-4P | 170366-43-5P | 170366-44-6P |
| | 170366-45-7P | 170366-46-8P | 170366-47-9P | 170366-48-0P | 170366-49-1P |
| | 170366-50-4P | 170366-51-5P | 170366-52-6P | 170366-53-7P | |

170366-54-8P 170366-55-9P 170366-56-0P 170366-57-1P 170366-58-2P
 170366-59-3P 170366-60-6P 170366-61-7P 170366-62-8P 170366-63-9P
 RL: AGR (Agricultural use); SPN (Synthetic preparation); BIOL
 (Biological study); PREP (Preparation); USES (Uses)
 (prepn. 2-phenyltriazolinone herbicides)
 IT 122-51-0, Triethyl orthoformate 541-41-3, Ethyl chloroformate
 3282-30-2, Pivaloyl chloride 51856-10-1 74038-47-4 146780-26-9,
 5-Chloro-2,4-difluorobenzonitrile 157277-54-8 157277-58-2
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (prepn. 2-phenyltriazolinone herbicides from)
 IT 157277-33-3P 157278-38-1P 157279-12-4P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. 2-phenyltriazolinone herbicides from)
 IT 170366-51-5P
 RL: AGR (Agricultural use); SPN (Synthetic preparation); BIOL
 (Biological study); PREP (Preparation); USES (Uses)
 (prepn. 2-phenyltriazolinone herbicides)
 RN 170366-51-5 HCAPLUS
 CN Methanimidamide, N'-[2-cyano-5-[3-(difluoromethyl)-4-ethyl-4,5-dihydro-5-
 oxo-1H-1,2,4-triazol-1-yl]-4-fluorophenyl]-N,N-dimethyl- (9CI) (CA INDEX
 NAME)

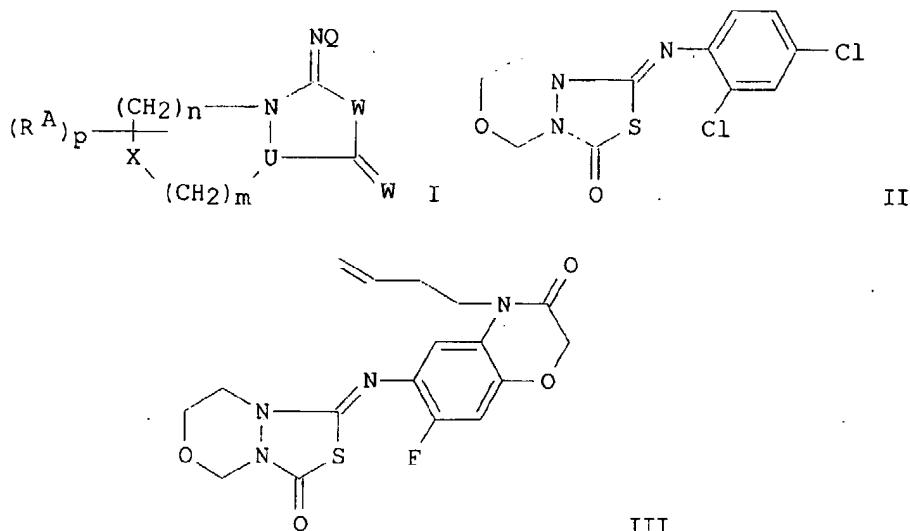


L97 ANSWER 19 OF 32 HCAPLUS COPYRIGHT 2003 ACS
 AN 1995:863363 HCAPLUS
 DN 123:256725
 TI Preparation of oxa- and thia(di)azabicyclic compounds as herbicides
 IN Hong, Wonpyo; Schafer, Matthias; Stevenson, Thomas Martin
 PA du Pont de Nemours, E. I., and Co., USA; Degussa A.-G.
 SO PCT Int. Appl., 87 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM C07D273-04
 ICS C07D513-04; C07C281-06; C07C337-06; A01N043-90
 ICI C07D513-04, C07D285-00, C07D273-00; C07D513-04, C07D277-00, C07D209-00
 CC 28-10 (Heterocyclic Compounds (More Than One Hetero Atom))
 Section cross-reference(s): 5

FAN.CNT 1

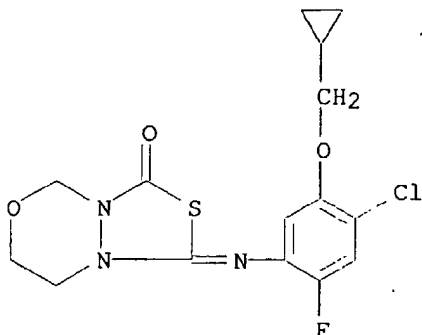
| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|--|----------|-----------------|--------------|
| WO 9506643 | A1 | 19950309 | WO 1994-US9522 | 19940830 <-- |
| W: | AM, AU, BB, BG, BR, BY, CA, CN, CZ, EE, FI, GE, HU, JP, KG, KP, KR, KZ, LK, LR, LT, LV, MD, MG, MN, NO, NZ, PL, RO, RU, SI, SK, TJ, TT, UA, US, UZ, VN | | | |
| RW: | KE, MW, SD, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | | | |
| AU 9476366 | A1 | 19950322 | AU 1994-76366 | 19940830 <-- |
| EP 716655 | A1 | 19960619 | EP 1994-926568 | 19940830 <-- |
| R: | DE, ES, FR, IT | | | |

BR 9407573 A 19960716 BR 1994-7573 19940830 <--
 US 5712225 A 19980127 US 1996-605010 19960228 <--
 PRAI US 1993-116787 19930903
 WO 1994-US9522 19940830
 OS CASREACT 123:256725; MARPAT 123:256725
 GI



- AB Title compds. I (X = O, S, SO, SO₂, CH₂, CHF, CHCl, CHBr, etc.; m, n = 1, 2, where m+n = 2, 3; p = 0-9; U = N, CH; W = O, S; RA halo, (halo)C1-4 alkyl, NC, C3-4 alkenyl, Cl-3 alkylthio, etc., or 2RA on the same C, together with the C = CO; Q = substituted Ph, substituted heterocyclyl) are prepd. N-(2,4-dichlorophenyl)tetrahydro-4H-1,3,4-oxadiazine-4-carbothioamide in MePh and Et₃N was added to thiophosgene in MePh to give II. A similar prepd. compd. III tested at 50 g/ha completely controlled post- and preemergence chickweed.
- ST thiadiazolooxadiazinone prepn herbicide; pyrrolothiazolone prepn herbicide; herbicide pyrrolothiazolone thiadiazolooxadiazinone prepn
- IT Herbicides
 (prepn. of oxa- and thia(di)azabicyclic compds. as herbicides)
- IT 169156-03-0P 169156-04-1P 169156-05-2P 169156-06-3P 169156-07-4P
 169156-08-5P 169156-09-6P 169156-10-9P 169156-11-0P 169156-12-1P
 169156-13-2P **169156-14-3P** 169156-15-4P 169156-16-5P
169156-17-6P 169156-18-7P 169156-19-8P 169156-20-1P
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
- IT (prepn. of oxa- and thia(di)azabicyclic compds. as herbicides)
 109-84-2, (2-Hydroxyethyl)hydrazine 6590-96-1, 2,4-Dichlorophenyl isothiocyanate 7553-49-3, Proline, 4-fluoro- 86798-29-0, 4-Chloro-2-fluoro-5-isopropoxyphenyl isothiocyanate
 RL: RCT (Reactant); RACT (Reactant or reagent)
- IT (prepn. of oxa- and thia(di)azabicyclic compds. as herbicides)
 98041-63-5P 169156-22-3P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. of oxa- and thia(di)azabicyclic compds. as herbicides)

IT 169156-14-3P
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (prepn. of oxa- and thia(di)azabicyclic compds. as herbicides)
 RN 169156-14-3 HCAPLUS
 CN 1H,3H,5H-[1,3,4]Thiadiazolo[3,4-c][1,3,4]oxadiazin-3-one, 1-[[4-chloro-5-(cyclopropylmethoxy)-2-fluorophenyl]imino]dihydro- (9CI)
 (CA INDEX NAME)



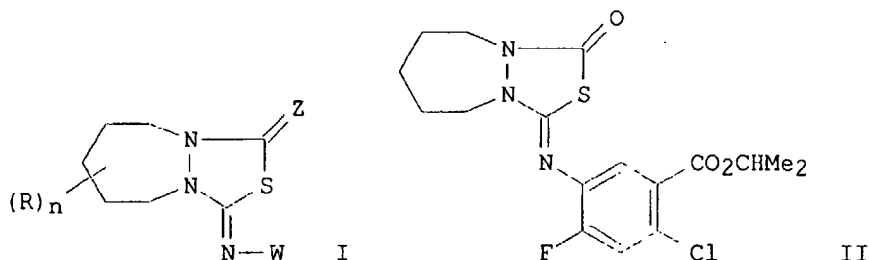
L97 ANSWER 20 OF 32 HCAPLUS COPYRIGHT 2003 ACS
 AN 1995:487975 HCAPLUS
 DN 122:239725
 TI Herbicidal 1H,3H,5H-[1,3,4]thiadiazolo[3,4-a][1,2]diazepin-1-ones and analogs
 IN Pissiotas, Georg; Moser, Hans; Brunner, Hans-Georg
 PA Ciba-Geigy A.-G., Switz.
 SO PCT Int. Appl., 124 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM C07D513-04
 ICS C07D243-02; C07C031-38; A01N043-90
 ICI C07D513-04, C07D285-00, C07D243-00
 CC 28-20 (Heterocyclic Compounds (More Than One Hetero Atom))
 Section cross-reference(s): 5
 FAN.CNT 1

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|-------------------|------|----------|--|--------------|
| WO 9500521 | A1 | 19950105 | WO 1994-EP1893 | 19940610 <-- |
| W: | | | AU, BB, BG, BR, BY, CA, CN, CZ, FI, GE, HU, JP, KE, KG, KP, KR, KZ, LK, LV, MD, MG, MN, MW, NO, NZ, PL, RO, RU, SD, SI, SK, TJ, TT, UA, US, UZ, VN | |
| RW: | | | AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG | |
| CA 2165196 | AA | 19950105 | CA 1994-2165196 | 19940610 <-- |
| AU 9470002 | A1 | 19950117 | AU 1994-70002 | 19940610 <-- |
| BR 9406971 | A | 19960326 | BR 1994-6971 | 19940610 <-- |
| EP 705267 | A1 | 19960410 | EP 1994-918863 | 19940610 <-- |
| EP 705267 | B1 | 19970813 | | |
| R: | | | AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE | |
| JP 09500373 | T2 | 19970114 | JP 1994-502388 | 19940610 <-- |
| ES 2107233 | T3 | 19971116 | ES 1994-918863 | 19940610 <-- |
| US 5817602 | A | 19981006 | US 1995-569071 | 19951221 <-- |
| PRAI CH 1993-1888 | | 19930623 | | |

WO 1994-EP1893
MARPAT 122:239725

19940610

OS
GI



AB The tetrahydro-1H,3H,5H-[1,3,4]thiadiazolo[3,4-a][1,2]diazepin-1-ones and 1H,3H,5H-[1,3,4]thiadiazolo[3,4-a][1,2]diazepin-1-thiones I (R = alkyl, cycloalkyl, haloalkyl, etc.; n = integer; Z = oxygen, sulfur; W = aryl, heteroacyl substituent) were disclosed as herbicides. A specifically claimed compd. is iso-Pr 2-chloro-4-fluoro-5-[(tetrahydro-3-oxo-1H,3H,5H-[1,3,4]thiadiazolo[3,4-a][1,2]diazepin-1-ylidene)amino]benzoate (II).

ST herbicide thiadiazolodiazepinyldeneamino benzoate prepn;
thiadiazolodiazepinone prepn herbicide

IT Herbicides

(prepn. of thiadiazolodiazepinones as herbicides)

IT 151540-51-1P 151540-83-9P 162220-05-5P 162220-11-3P 162220-12-4P
162220-13-5P 162220-14-6P 162220-15-7P **162220-16-8P**
162220-17-9P 162220-18-0P 162220-19-1P 162220-20-4P 162220-21-5P
162220-22-6P

RL: AGR (Agricultural use); SPN (Synthetic preparation); BIOL
(Biological study); PREP (Preparation); USES (Uses)

(prepn. of thiadiazolodiazepinones as herbicides)

IT 138852-02-5 162220-09-9

RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. of thiadiazolodiazepinones as herbicides)

IT 162220-04-4P 162220-06-6P 162220-07-7P 162220-08-8P 162220-10-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
(Reactant or reagent)

(prepn. of thiadiazolodiazepinones as herbicides)

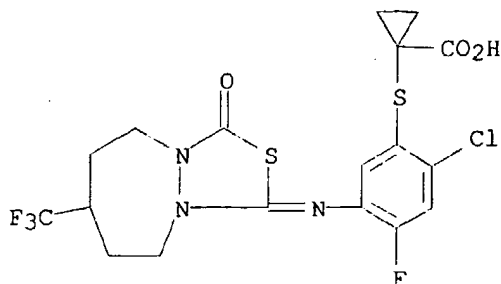
IT **162220-16-8P**

RL: AGR (Agricultural use); SPN (Synthetic preparation); BIOL
(Biological study); PREP (Preparation); USES (Uses)

(prepn. of thiadiazolodiazepinones as herbicides)

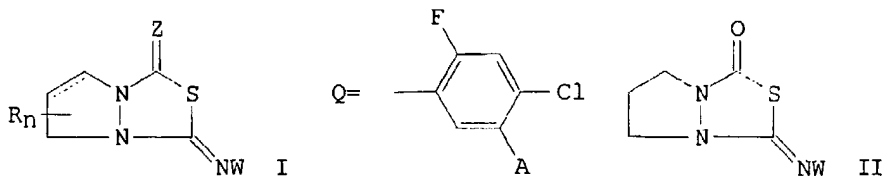
RN 162220-16-8 HCAPLUS

CN Cyclopropanecarboxylic acid, 1-[[2-chloro-4-fluoro-5-[[tetrahydro-3-oxo-7-(trifluoromethyl)-1H,3H,5H-[1,3,4]thiadiazolo[3,4-a][1,2]diazepin-1-ylidene]amino]phenyl]thio]- (9CI) (CA INDEX NAME)



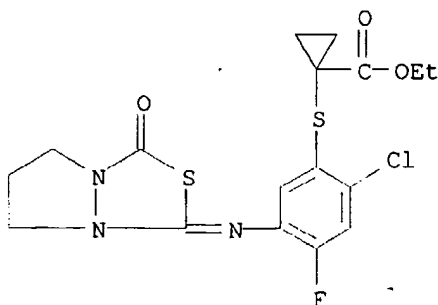
L97 ANSWER 21 OF 32 HCAPLUS COPYRIGHT 2003 ACS
 AN 1993:191744 HCAPLUS
 DN 118:191744
 TI Preparation of 8-arylimino-7-thia-1,5-diazabicyclo[3.3.0]octan-6-ones as herbicides
 IN Brunner, Hans Georg; Moser, Hans; Pissiotas, Georg
 PA Ciba-Geigy A.-G., Switz.
 SO PCT Int. Appl., 132 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 IC ICM C07D513-04
 ICS A01N043-90
 ICI C07D513-04, C07D285-00, C07D231-00
 CC 28-10 (Heterocyclic Compounds (More Than One Hetero Atom))
 Section cross-reference(s): 5
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | |
|------|--|------|----------|-----------------|----------|-----|
| PI | WO 9221684 | A1 | 19921210 | WO 1992-EP1092 | 19920518 | <-- |
| | W: AU, BG, BR, CA, CS, FI, HU, JP, KR, NO, PL, RO, RU, US | | | | | |
| | RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LU, MC, NL, SE | | | | | |
| | AU 9217509 | A1 | 19930108 | AU 1992-17509 | 19920518 | <-- |
| | BR 9206101 | A | 19940802 | BR 1992-6101 | 19920518 | <-- |
| | JP 06507607 | T2 | 19940901 | JP 1992-509205 | 19920518 | <-- |
| | EP 639196 | A1 | 19950222 | EP 1992-910124 | 19920518 | <-- |
| | R: AT, CH, DE, ES, FR, GB, IT, LI, SE | | | | | |
| | ZA 9204100 | A | 19931206 | ZA 1992-4100 | 19920605 | <-- |
| | US 5494889 | A | 19960227 | US 1993-157052 | 19931202 | <-- |
| PRAI | CH 1991-1682 | | 19910606 | | | |
| | CH 1992-642 | | 19920302 | | | |
| | WO 1992-EP1092 | | 19920518 | | | |
| OS | MARPAT 118:191744 | | | | | |
| GI | | | | | | |



AB Title compds. [I; R = (cyclo)alkyl, alkenyl, Ph, etc.; W = (hetero)aryl ;
 Z = O, S; n = 0-4] were prepd. Thus, H2NNHCO2CMe3 was treated with

- (Me3CCO)2O and the product cyclocondensed with Br(CH2)3Br to give, after deprotection, pyrazolidine dihydrobromide which was condensed with WSCN (W = Ph group Q, A = SCH2CO2Me) to give, after cyclocondensation with COCl2, title compd. II (W = Q, A = SCH2CO2Me). II (W = Q, A = CO2Me) gave complete control of Avena, Sinapis, Setaria, and Stellaria species at 4 kg/ha preemergent.
- ST thiadiazabicyclooctanone arylimino prepn herbicide
IT Herbicides
((arylimino)thiadiazabicyclooctanones)
- IT 14666-61-8P 146595-10-0P 146605-64-3P 146605-65-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, in prepn. of herbicides)
- IT 146605-48-3P 146605-49-4P 146605-50-7P 146605-51-8P 146605-52-9P
146605-53-0P 146605-54-1P 146605-55-2P 146605-56-3P
146605-57-4P 146605-58-5P 146605-59-6P 146605-60-9P 146605-61-0P
146605-62-1P 146605-63-2P
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of, as herbicide)
- IT 109-64-8, 1,3-Dibromopropane 870-46-2 131533-23-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in prepn. of herbicides)
- IT 146605-55-2P
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of, as herbicide)
- RN 146605-55-2 HCAPLUS
CN Cyclopropanecarboxylic acid, 1-[[[2-chloro-5-[(dihydro-3-oxo-1H,3H,5H-pyrazolo[1,2-c][1,3,4]thiadiazol-1-ylidene)amino]-4-fluorophenyl]thio]-, ethyl ester (9CI) (CA INDEX NAME)



- L97 ANSWER 22 OF 32 HCAPLUS COPYRIGHT 2003 ACS
AN 1992:214522 HCAPLUS
DN 116:214522
TI Preparation of (heterocyclphenylthio)cycloalkanecarboxylic acid derivatives as herbicides and plant growth regulators
IN Pissiotas, Georg; Moser, Hans; Brunner, Hans Georg; Steiner, Eginhard
PA Ciba-Geigy A.-G., Switz.
SO Eur. Pat. Appl., 223 pp.
CODEN: EPXXDW
DT Patent.
LA German

IC ICM C07D209-48
 ICS A01N043-00; C07D471-04; C07D487-04; C07D207-408; C07D211-82;
 C07D513-04; C07D265-26
 ICI C07D471-04, C07D235-00, C07D221-00; C07D487-04, C07D249-00, C07D237-00;
 C07D513-04, C07D285-00, C07D237-00
 CC 28-15 (Heterocyclic Compounds (More Than One Hetero Atom))
 Section cross-reference(s): 5

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|--------------|
| PI | EP 468924 | A2 | 19920129 | EP 1991-810577 | 19910716 <-- |
| | EP 468924 | A3 | 19920429 | | |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE | | | | |
| | CA 2047489 | AA | 19920124 | CA 1991-2047489 | 19910719 <-- |
| | US 5180418 | A | 19930119 | US 1991-732988 | 19910719 <-- |
| | AU 9181261 | A1 | 19920130 | AU 1991-81261 | 19910722 <-- |
| | AU 638854 | B2 | 19930708 | | |
| | ZA 9105720 | A | 19920325 | ZA 1991-5720 | 19910722 <-- |
| | BR 9103125 | A | 19920428 | BR 1991-3125 | 19910722 <-- |
| | JP 04234360 | A2 | 19920824 | JP 1991-206542 | 19910723 <-- |
| PRAI | CH 1990-2439 | | 19900723 | | |
| OS | MARPAT 116:214522 | | | | |
| GI | | | | | |

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

AB Title compds. [I; W = Q1-Q3, etc.; A = COR3, cyano; R1 = H, F; R2 = halo, cyano; R3 = Cl, amino, XR5, pyrrolidino, morpholino, etc.; R4, R14 = H, F, Cl, Br, alkyl, CF3; R5 = H, (cyclo)alkyl, alkoxyalkyl, haloalkyl, alkylthioalkyl, cyanoalkyl, alkenyl, (substituted) PhCH2, etc.; X, Z = O, S; n = 0-4], were prepd. Thus, Me 1-(5-amino-2-chloro-4-fluorophenylthio)cyclobutanecarboxylate (prepn. given) and 3,4,5,6-tetrahydrophthalic anhydride were refluxed 5 h in AcOH to give title compd. II. II at 250 g/ha postemergent gave 100% control of Abutilon, Sida spinosa, etc.

ST heterocyclylphenylthiocycloalkanecarboxylate prepn herbicide; plant growth regulator heterocyclylphenylthiocycloalkanecarboxylate

IT Herbicides
 ((heterocyclylphenylthio)cycloalkanecarboxylic acid derivs.)

IT Plant hormones and regulators
 RL: RCT (Reactant); RACT (Reactant or reagent)
 ((heterocyclylphenylthio)cycloalkanecarboxylic acid derivs.)

IT 2426-02-0, 3,4,5,6-Tetrahydrophthalic anhydride 4759-65-3,
 3-Trifluoromethylglutaric anhydride
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (condensation of, with (cyclobutylthio)aniline deriv., in prepn. of herbicide and plant growth regulator)

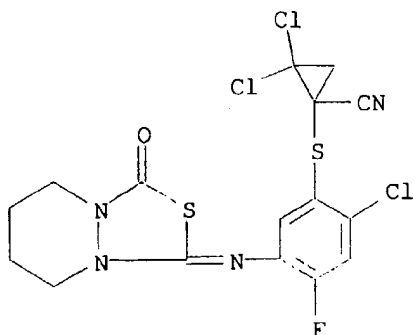
IT 505-19-1, Hexahydropyridazine
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (condensation of, with (isothiocyanatophenylthio)cyclobutane deriv., in prepn. of herbicide and plant growth regulator)

IT 29547-04-4, Methyl 2,4-dibromobutyrate
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (condensation of, with aminochlorofluorothiophenol, in prepn. of herbicide and plant growth regulator)

IT 463-71-8, Thiophosgene
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (condensation of, with aniline deriv., in prepn. of herbicide and plant growth regulator)

IT 99719-10-5

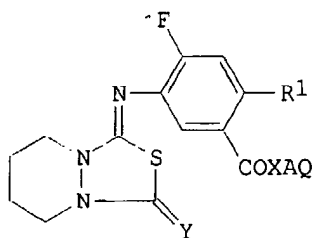
- RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with bromocyclobutanecarboxylate, in prepn. of herbicide and plant growth regulator)
- IT 51175-79-2, Methyl 1-bromocyclobutanecarboxylate
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with phenylmercaptan deriv., in prepn. of herbicide and plant growth regulator)
- IT 140909-42-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclization of, in prepn. of, as intermediate for herbicide and plant growth regulator)
- IT 75-44-5, Phosgene
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation of, with (hexahydropyridazinylthiocarbonylamino)phenylthiocyclobutane deriv.)
- IT 140909-27-9P 140909-28-0P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as herbicide and in plant growth regulator)
- IT 140909-04-2P 140909-05-3P 140909-06-4P 140909-07-5P
140909-08-6P 140909-09-7P 140909-10-0P 140909-11-1P
140909-12-2P 140909-13-3P 140909-14-4P 140909-15-5P
140909-16-6P 140909-17-7P 140909-18-8P
140909-19-9P 140909-20-2P 140909-21-3P
140909-22-4P 140909-23-5P 140909-24-6P
140909-25-7P 140909-26-8P 140909-29-1P
140909-30-4P 140909-31-5P 140909-32-6P 140909-33-7P 140909-34-8P
140909-35-9P 140909-36-0P 140909-37-1P 140909-38-2P 140909-39-3P
140936-19-2P 140936-20-5P 140936-21-6P 140936-22-7P
140936-23-8P
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of, as herbicide and plant growth regulator)
- IT 140909-40-6P 140909-41-7P 140909-43-9P 140909-44-0P 140936-24-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as intermediate for herbicide and plant growth regulator)
- IT 140909-27-9P
RL: AGR (Agricultural use); PREP (Preparation)
(prepn. of, as herbicide and in plant growth regulator)
- RN 140909-27-9 HCAPLUS
- CN Cyclopropanecarbonitrile, 2,2-dichloro-1-[[2-chloro-4-fluoro-5-[(5,6,7,8-tetrahydro-3-oxo-1H,3H-[1,3,4]thiadiazolo[3,4-a]pyridazin-1-ylidene)amino]phenyl]thio]- (9CI) (CA INDEX NAME)



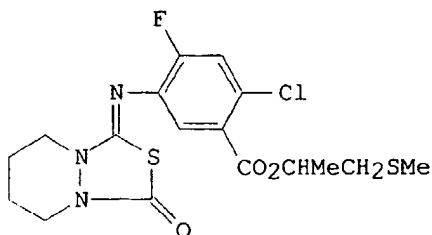
AN 1992:83680 HCAPLUS
 DN 116:83680
 TI Preparation of (phenylimino)thiadiazabicyclononanone derivatives as herbicides and plant growth regulators
 IN Pissiotas, Georg; Moser, Hans; Brunner, Hans Georg
 PA Ciba-Geigy A.-G., Switz.
 SO Eur. Pat. Appl., 48 pp.
 CODEN: EPXXDW
 DT Patent
 LA German
 IC ICM C07D513-04
 ICS C07D237-04; C07C331-28; A01N043-90
 ICI C07D513-04, C07D285-00, C07D237-00
 CC 28-10 (Heterocyclic Compounds (More Than One Hetero Atom))
 Section cross-reference(s): 5

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|--------------|
| PI | EP 457714 | A1 | 19911121 | EP 1991-810168 | 19910313 <-- |
| | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE | | | | |
| | US 5135562 | A | 19920804 | US 1991-672204 | 19910319 <-- |
| | CA 2038731 | AA | 19910923 | CA 1991-2038731 | 19910320 <-- |
| | JP 06056847 | A2 | 19940301 | JP 1991-82034 | 19910320 <-- |
| | BR 9101114 | A | 19911105 | BR 1991-1114 | 19910321 <-- |
| | ZA 9102100 | A | 19911224 | ZA 1991-2100 | 19910321 <-- |
| | US 5229514 | A | 19930720 | US 1992-881571 | 19920512 <-- |
| PRAI | CH 1990-949 | | 19900322 | | |
| | CH 1990-951 | | 19900322 | | |
| | US 1991-672204 | | 19910319 | | |
| OS | MARPAT 116:83680 | | | | |
| GI | | | | | |



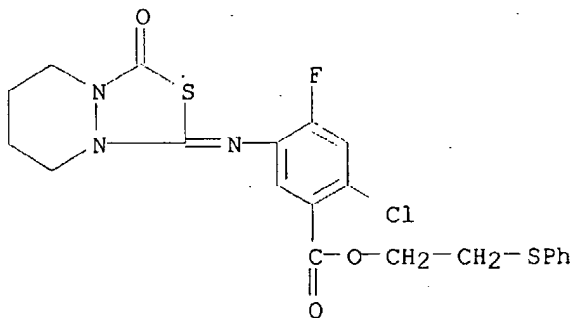
I



II

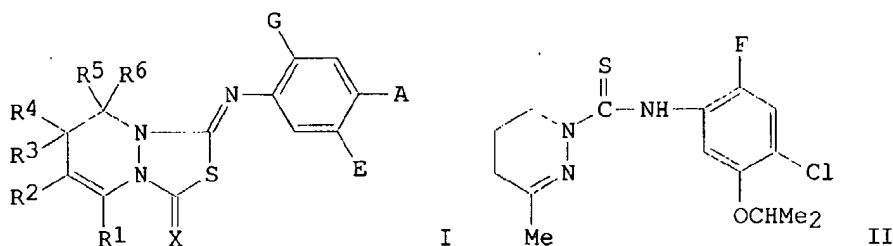
AB Title compds. I [R1 = halo; X = O, S; Y = O, S; A = C1-4 alkylene; Q = OH, halo, cyano, (substituted) C2-6 alkenyl, C2-4 alkynyl, C1-6 alkylcarbonyl, C2-6 alkoxyalkylcarbonyl, PhCO, S(O)kR2, etc.; R2 = C1-10 alkyl; k = 0-2] were prepd. Thus 2-chloro-4-fluoro-5-nitrobenzoyl chloride was treated with MeCHOHCH2SMe in the presence of Et3N and the resultant ester was reduced by Raney Ni to the amino deriv. This was converted to the

- isothiocyanate by ClCSCl. Condensation of the isothiocyanate by hexahydropyridazine, followed by cyclocondensation with ClCOCl gave title compd. II. II at 125 g/ha post-emergent gave complete control of a no. of weeds, including *Solanum nigrum*.
- ST phenyliminothiadiazabicyclononanone prepn herbicide; plant growth regulator phenyliminothiadiazabicyclononanone
- IT Herbicides
((phenylimino)thiadiazabicyclononanone derivs.)
- IT Plant hormones and regulators
RL: RCT (Reactant); RACT (Reactant or reagent)
((phenylimino)thiadiazabicyclononanone derivs.)
- IT 138867-64-8P 138867-65-9P 138867-66-0P 138867-67-1P 138867-68-2P
138867-69-3P 138867-70-6P 138867-71-7P
138867-72-8P 138867-73-9P 138867-74-0P
138867-75-1P 138867-76-2P 138867-77-3P 138867-78-4P
138867-79-5P 138867-80-8P 138867-81-9P 138867-82-0P
138867-83-1P 138867-84-2P 138867-85-3P 138867-86-4P
138867-87-5P 138867-88-6P 138867-89-7P 138867-90-0P 138867-91-1P
138867-92-2P 138867-93-3P 138867-94-4P 138885-28-6P
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of, as herbicide and plant growth regulator)
- IT 138867-95-5P 138867-96-6P 138867-97-7P 138867-98-8P 138867-99-9P
138868-00-5P 138868-01-6P 138868-02-7P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of, as intermediate for herbicides and plant growth regulators)
- IT 75-44-5, Phosgene 137-00-8 463-71-8, Thiophosgene 505-19-1,
Hexahydropyridazine 2365-48-2, Methyl thioglycolate 6943-87-9
120890-66-6 138868-03-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(reaction of, in prepn. of herbicides and plant growth regulators)
- IT 138867-69-3P
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of, as herbicide and plant growth regulator)
- RN 138867-69-3 HCAPLUS
- CN Benzoic acid, 2-chloro-4-fluoro-5-[(tetrahydro-3-oxo-1H,3H-[1,3,4]thiadiazolo[3,4-a]pyridazin-1-ylidene)amino]-, 2-(phenylthio)ethyl ester (9CI) (CA INDEX NAME)



TI Preparation of condensed heterocycles as herbicides
 IN Sato, Jun; Fukuda, Kenzo; Ito, Kaoru; Suzuki, Koichi; Nawamaki, Tsutomu;
 Watanabe, Shigeomi
 PA Nissan Chemical Industries, Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 75 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM C07D513-04
 ICS A01N043-90; C07D237-04
 ICA C07D263-32; C07D271-10; C07D403-12; C07D413-12; C07D417-12; C07F009-6561
 CC 28-15 (Heterocyclic Compounds (More Than One Hetero Atom))
 Section cross-reference(s): 5
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|------------------|------|----------|-----------------|--------------|
| PI | JP 02188588 | A2 | 19900724 | JP 1989-6552 | 19890114 <-- |
| | JP 2762505 | B2 | 19980604 | | |
| PRAI | JP 1989-6552 | | 19890114 | | |
| OS | MARPAT 114:23974 | | | | |
| GI | | | | | |



AB Condensed pyridazine derivs. (I; R1-R6 = H, halo, Cl-4 alkyl, Ph, PhCH2; X = O, S; A = halo, NO2; E = H, halo, NH2, OH, SH, alkoxy, etc.; G = H, halo) are prepd. ClCO2CCl3 (0.18 mL) was added to a soln. of 0.84 g pyridazine deriv. II and 0.46 g pyridine in CH2Cl2 at 0.degree. to give 0.61 g I (R1 = Me, R2-R6 = H, X = O, A = Cl, G = F, E = Me2CHO). Also prepd. were 60 addnl. I which showed .gtoreq.90% control of barnyard grass, crabgrass, etc. at 0.02-0.12 kg/ha.

ST thiadiazolopyridine prepn herbicide
 IT Herbicides
 (thiadiazolopyridazine derivs.)
 IT 503-38-8, Trichloromethyl chloroformate
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (cyclocondensation of, with pyridazinethioamide derivs.)
 IT 463-71-8, Thiophosgene 32315-10-9, Triphosgene
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (cyclocondensation of, with pyridazinethiocarboxamide derivs.)
 IT 131191-07-6 131191-08-7 131191-09-8 131191-10-1 131191-11-2
 131191-14-5
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (cyclocondensation of, with trichloromethyl chloroformate)
 IT 131206-05-8
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (cyclocondensation of, with triphosgene)
 IT 131191-13-4 131191-14-5 131191-15-6 131191-16-7
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (cyclocondensation of, with thiophosgene)
 IT 131191-12-3
 RL: RCT (Reactant); RACT (Reactant or reagent)

(hydrolysis of)
 IT 16596-41-1P, 1-Pyrrolidinamine 123614-66-4P 123614-67-5P
 123614-68-6P 123614-69-7P 123614-71-1P 123614-72-2P 123614-73-3P
 123614-74-4P 123614-75-5P 123614-76-6P 123614-77-7P 123614-78-8P
 131191-15-6P 131191-54-3P 131191-60-1P 131191-61-2P 131191-62-3P
 131191-63-4P 131191-64-5P 131191-65-6P 131206-08-1P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)

(prepn. and reaction of, in prepn. of herbicides)
 IT 131191-07-6P 131191-12-3P 131191-17-8P 131191-18-9P
 131191-19-0P 131191-20-3P 131191-21-4P 131191-22-5P
 131191-23-6P 131191-24-7P 131191-25-8P 131191-26-9P
 131191-27-0P 131191-28-1P 131191-29-2P
 131191-30-5P 131191-31-6P 131191-32-7P
 131191-33-8P 131191-34-9P 131191-35-0P 131191-36-1P
 131191-37-2P 131191-38-3P 131191-39-4P
 131191-40-7P 131191-41-8P 131191-42-9P
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 131191-69-0P 131191-70-3P 131191-71-4P 131191-72-5P 131191-73-6P
 131191-74-7P 131191-75-8P 131191-76-9P 131191-77-0P 131191-78-1P
 131191-79-2P 131191-80-5P 131191-81-6P 131191-82-7P 131191-83-8P
 131206-06-9P 131206-09-2P 131206-10-5P

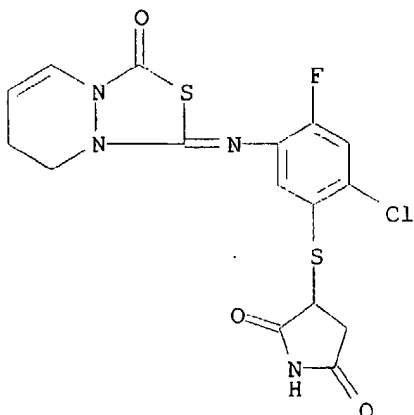
RL: AGR (Agricultural use); BAC (Biological activity or
 effector, except adverse); BSU (Biological study, unclassified); SPN
 (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES
 (Uses)

(prepn. of, as herbicide)
 IT 26304-18-7 86798-29-0 131191-54-3 131191-55-4 131191-56-5
 131191-57-6 131191-58-7 131191-59-8

RL: RCT (Reactant); RACT (Reactant or reagent)

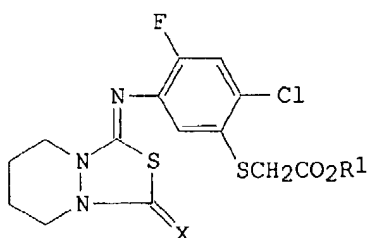
(reaction of, in prepn. of herbicides)
 IT 131191-12-3
 RL: AGR (Agricultural use); RACT (Reactant or reagent)

(hydrolysis of)
 RN 131191-12-3 HCAPLUS
 CN 2,5-Pyrrolidinedione, 3-[[2-chloro-5-[(7,8-dihydro-3-oxo-1H,3H-
 [1,3,4]thiadiazolo[3,4-a]pyridazin-1-ylidene)amino]-4-fluorophenyl]thio]-
 (9CI) (CA INDEX NAME)



AN 1990:93940 HCAPLUS
 DN 112:93940
 TI Preparation of condensed heterocyclic derivatives as herbicides
 IN Sato, Jun; Fukuda, Kenzo; Ito, Kaoru; Suzuki, Koichi; Nawamaki, Tsutomu;
 Watanabe, Shigeomi
 PA Nissan Chemical Industries, Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 9 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM C07D513-04
 ICS A01N043-90
 ICA C07D237-02
 CC 5-3 (Agrochemical Bioregulators)
 Section cross-reference(s): 28
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|------------------|------|----------|-----------------|--------------|
| PI | JP 01186894 | A2 | 19890726 | JP 1988-11145 | 19880121 <-- |
| PRAI | JP 1988-11145 | | 19880121 | | |
| OS | MARPAT 112:93940 | | | | |
| GI | | | | | |

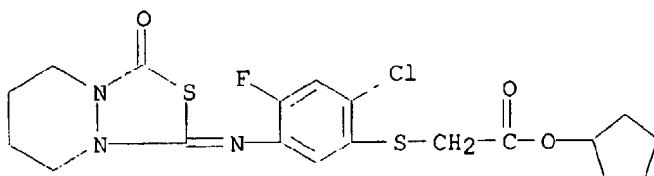


I

AB Condensed heterocyclic derivs. I (R1 = H, C1-5 alkyl, C3-6 cycloalkyl, CH2CH2Y, CH2CO2R2, CHMeCO2R3; R2, R3 = Me, Et; X = O, S; Y = Cl, Br) are prepd. as herbicides. 1,2-Tetramethylene-1-(2-fluoro-4-chloro-5-cyclopentylloxycarbonylmethylthiophenylthiocarbamoyl)hydrazine (3.31 g) and 1.70 g pyridine in CH2Cl2 was treated with 0.55 mL ClCO2CCl3 at room temp. overnight to give 1.98 g I (R1 = cyclopentyl, X = O) (II) after column chromatog. purifn. II applied, at 0.01 kg/ha, showed .gtoreq.90% control of 7 weed species, without any damage to soybean, whereas acifluorfen-sodium, at 0.32 kg/ha, exhibited poor control of the weeds with some damage to soybean. A wettable powder was prepd. from II 50, Zeeklite PFP (kaolin clay) 43, Sorpol 5050 (anionic surfactant) 2, Runox 1000C (anionic surfactant) 3, and Carplex No.80 2 wt. parts.

ST condensed heterocycle prepn herbicide
 IT Herbicides
 (condensed heterocyclic derivs. as)
 IT 125318-61-8
 RL: BIOL (Biological study)
 (condensation of, with hexahydropyridazine deriv.)
 IT 505-19-1, Hexahydropyridazine
 RL: BIOL (Biological study)
 (condensation of, with phenylisothiocyanate)
 IT 463-71-8, Thiophosgene 503-38-8, Trichloromethyl chloroformate
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (cyclocondensation of, with phenylthiocarbamoylhydrazine deriv.)
 IT 125318-60-7
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (cyclocondensation of, with trichloromethyl chloroformate and

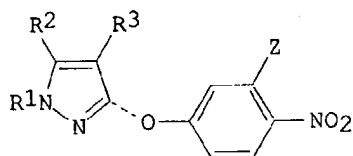
thiophosgene)
 IT 125318-58-3P 125318-59-4P
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (prepn. of, as herbicide)
 IT 125318-58-3P
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (prepn. of, as herbicide)
 RN 125318-58-3 HCAPLUS
 CN Acetic acid, [[2-chloro-4-fluoro-5-[(tetrahydro-3-oxo-1H,3H-[1,3,4]thiadiazolo[3,4-a]pyridazin-1-ylidene)amino]phenyl]thio]-, cyclopentyl ester (9CI) (CA INDEX NAME)



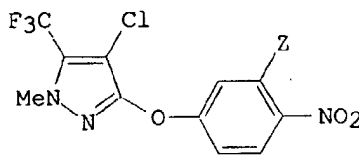
L97 ANSWER 26 OF 32 HCAPLUS COPYRIGHT 2003 ACS
 AN 1989:423509 HCAPLUS
 DN 111:23509
 TI Substituted 3-(4-nitrophenoxy)pyrazoles, their herbicidal use and compositions, and processes and intermediates for their preparation
 IN Moedritzer, Kurt; Lee, Len Fang; Rogers, Michael David; Anderson, Dennis Keith; Singh, Rajendra Kumar; Gaede, Bruce John; Torrence, Lisa Louise
 PA Monsanto Co., USA
 SO Eur. Pat. Appl., 338 pp.
 CODEN: EPXXDW
 DT Patent
 LA English
 IC ICM C07D231-20
 ICS C07D231-30; A01N043-56
 CC 28-8 (Heterocyclic Compounds (More Than One Hetero Atom))
 Section cross-reference(s): 5
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
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| PI | EP 295233 | A2 | 19881214 | EP 1988-870104 | 19880607 <-- |
| | EP 295233 | A3 | 19890315 | | |
| | R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE | | | | |
| | US 4855442 | A | 19890808 | US 1988-175461 | 19880413 <-- |
| | US 4948902 | A | 19900814 | US 1988-175462 | 19880413 <-- |
| | AU 8817450 | A1 | 19881208 | AU 1988-17450 | 19880607 <-- |
| | AU 607225 | B2 | 19910228 | | |
| | FI 8802680 | A | 19881209 | FI 1988-2680 | 19880607 <-- |
| | DK 8803086 | A | 19881209 | DK 1988-3086 | 19880607 <-- |
| | NO 8802509 | A | 19881209 | NO 1988-2509 | 19880607 <-- |
| | NO 169387 | B | 19920309 | | |
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| | JP 01025764 | A2 | 19890127 | JP 1988-140361 | 19880607 <-- |
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| CN 1033457 | A | 19890621 | CN 1988-103374 | 19880607 <-- |
| CN 1021191 | B | 19930616 | | |
| ZA 8804050 | A | 19900228 | ZA 1988-4050 | 19880607 <-- |
| HU 52063 | A2 | 19900628 | HU 1988-2946 | 19880607 <-- |
| HU 204259 | B | 19911230 | | |
| DD 289461 | A5 | 19910502 | DD 1988-316491 | 19880607 <-- |
| PL 156730 | B1 | 19920430 | PL 1988-279592 | 19880607 <-- |
| PL 156831 | B1 | 19920430 | PL 1988-279591 | 19880607 <-- |
| PL 157154 | B1 | 19920529 | PL 1988-272883 | 19880607 <-- |
| NO 8900595 | A | 19881209 | NO 1989-595 | 19890210 <-- |
| NO 170276 | B | 19920622 | | |
| NO 170276 | C | 19920930 | | |
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| US 1987-59712 | | 19870608 | | |
| US 1988-175460 | | 19880413 | | |
| US 1988-175461 | | 19880413 | | |
| US 1988-175462 | | 19880413 | | |
| US 1988-175463 | | 19880413 | | |
| NO 1988-2509 | | 19880607 | | |
| OS CASREACT 111:23509; MARPAT 111:23509 | | | | |
| GI | | | | |



I



II

- AB Title compds. I [R1 = Me, Et, halomethyl, haloethyl; R2 = Cl, cyano, halomethyl, haloethyl, MeS, EtS, MeS(O), EtS(O), MeS(O)2, EtS(O)2, MeOCH2; R3 = H, halo, NO2; Z = H, substituent of mol. wt. .ltoreq.300] are prepd. as herbicides. 3-Fluoroacetophenone underwent nitration by fuming HNO3 in the 6-position, followed by condensation with 5-trifluoromethyl-4-chloro-3-hydroxy-1-methylpyrazole to give (trifluoromethyl)chloro(nitrophenoxy)methylpyrazole II (Z = Ac). This underwent oximation by NH2OH.HCl, followed by etherification of the oxime with BrCH2CO2Me, to give II (Z = MeOCOCH2ON:CMc) (III). At 11.21 kg/ha postemergence, III gave 100% control of 9/10 tested weeds, including barnyardgrass, velvetleaf, and Pennsylvania smartweed.
- ST nitrophenoxy pyrazole prepn herbicide; phenoxy pyrazole nitro prepn herbicide; pyrazole nitrophenoxy prepn herbicide
- IT Herbicides
(nitrophenoxy)pyrazoles)
- IT Molecular structure-biological activity relationship
(herbicidal, of (nitrophenoxy)pyrazoles)
- IT 121297-32-3 121298-16-6 121299-97-6 121301-48-2
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(herbicidal activity of)
- IT 2250-48-8P, 3-Fluoro-6-nitroacetophenone 107638-26-6P,
4,4,4-Trifluoro-3-amino-2-butenamide 119022-51-4P, 1-Methyl-3-hydroxy-5-trifluoromethylpyrazole 121296-21-7P 121297-22-1P 121297-88-9P
121302-07-6P 121303-75-1P 121303-80-8P 121303-81-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. and reaction of, in prepn. of (nitrophenoxy)pyrazole herbicides)

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RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of, as herbicide)

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RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

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| IT | (prepn. of, as herbicide) | | | |
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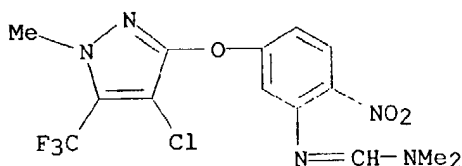
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| 121302-68-9P | 121302-69-0P | 121302-70-3P | 121302-71-4P | 121302-72-5P |
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| 121302-83-8P | 121302-84-9P | 121302-85-0P | 121302-86-1P | 121302-87-2P |
| 121302-88-3P | 121302-89-4P | 121302-90-7P | 121302-91-8P | 121302-93-0P |
| 121302-94-1P | 121302-95-2P | 121302-96-3P | 121302-97-4P | 121302-98-5P |
| 121302-99-6P | 121303-00-2P | 121303-01-3P | 121303-02-4P | 121303-03-5P |
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RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of, as herbicide)

| | | | | |
|-----------------|--------------|--------------|--------------|--------------|
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| 121303-18-2P | 121303-19-3P | 121303-20-6P | 121303-21-7P | 121303-22-8P |
| 121303-23-9P | 121303-24-0P | 121303-25-1P | 121303-26-2P | 121303-27-3P |
| 121303-28-4P | 121303-29-5P | 121303-30-8P | 121303-31-9P | 121303-32-0P |
| 121303-33-1P | 121303-34-2P | 121303-35-3P | 121303-36-4P | 121303-37-5P |
| 121303-38-6P | 121303-39-7P | 121303-40-0P | 121303-41-1P | 121303-42-2P |
| 121303-43-3P | 121303-44-4P | 121303-45-5P | 121303-46-6P | 121303-47-7P |
| 121303-48-8P | 121303-49-9P | 121303-50-2P | 121303-51-3P | 121303-52-4P |
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| 121303-63-7P | 121303-64-8P | 121303-65-9P | 121303-66-0P | 121303-67-1P |
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| 121304-46-9P | 121304-47-0P | 121304-48-1P | 121304-49-2P | 121304-50-5P |
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| 121304-76-5P | 121304-77-6P | 121304-78-7P | 121304-79-8P | 121304-80-1P |
| 121304-81-2P | 121304-82-3P | 121304-83-4P | 121304-84-5P | 121304-85-6P |
| 121304-86-7P | 121304-87-8P | 121304-88-9P | 121304-89-0P | 121304-90-3P |

- 121321-83-3P 121321-84-4P 121321-85-5P 121321-86-6P 121321-87-7P
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 121321-98-0P 121321-99-1P 121322-00-7P 121322-01-8P 121322-02-9P
 121322-03-0P 121322-04-1P 121322-05-2P 121322-06-3P 121322-07-4P
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 121322-13-2P 121339-92-2P 122180-48-7P
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of, as herbicide)
- IT 57-14-7, N,N-Dimethylhydrazine 60-34-4, Methylhydrazine 74-89-5, Methylamine, preparation 75-04-7, Ethylamine, reactions 75-61-6, Dibromodifluoromethane 96-32-2, Methyl bromoacetate 109-89-7, Diethylamine, reactions 446-33-3, 4-Fluoro-2-methylnitrobenzene 446-35-5, 2,4-Difluoronitrobenzene 448-19-1, 4-Fluoro-2-methoxynitrobenzene 455-36-7 3144-09-0, Methanesulfonamide 5470-11-1, Hydroxylamine hydrochloride 6638-79-5, N,O-Dimethylhydroxylamine hydrochloride 51282-49-6, 4-Chloro-2-methoxycarbonylnitrobenzene 51282-56-5, 4-Chloro-2-ethoxycarbonylnitrobenzene 77207-00-2 92607-62-0 92607-63-1 107638-19-7, Methyl 4,4,4-trifluoro-3-amino-2-butenate 119022-51-4, 5-Trifluoromethyl-3-hydroxy-1-methylpyrazole 121298-39-3 121303-76-2, Ethyl 3-methylamino-4,4,4-trifluoro-2-butenate 121303-77-3, 4-Fluoro-2-(ethoxycarbonylmethyl)nitrobenzene 121303-78-4, 5-Trifluoromethyl-4-chloro-3-hydroxy-1-methylpyrazole 121303-79-5, 5-Pentafluoroethyl-4-chloro-3-hydroxy-1-methylpyrazole 121303-82-0
 RL: RCT (Reactant); RACT (Reactant or reagent) (reaction of, in prepn. of (nitrophenoxy)pyrazole herbicides)
- IT 121300-04-7P
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses) (prepn. of, as herbicide)
- RN 121300-04-7 HCAPLUS
 CN Methanimidamide, N'-[[4-chloro-1-methyl-5-(trifluoromethyl)-1H-pyrazol-3-yl]oxy]-2-nitrophenyl]-N,N-dimethyl- (9CI) (CA INDEX NAME)



- L97 ANSWER 27 OF 32 HCAPLUS COPYRIGHT 2003 ACS
 AN 1989:212812 HCAPLUS
 DN 110:212812
 TI Condensed imino-azoles and imino-azines, processes for their preparation, and their use as agents with herbicidal activity
 IN Franke, Wilfried; Blume, Friedhelm; Arndt, Friedrich; Rees, Richard
 PA Schering A.-G., Fed. Rep. Ger.
 SO Eur. Pat. Appl., 22 pp.
 CODEN: EPXXDW
 DT Patent
 LA German
 IC ICM C07D513-04
 ICS C07D498-04; A01N043-90

ICI C07D513-04, C07D277-00, C07D209-00; C07D513-04, C07D277-00, C07D221-00;
C07D498-04, C07D263-00, C07D221-00; C07D498-04, C07D263-00, C07D209-00;
C07D513-04, C07D279-00, C07D221-00

CC 28-7 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 5

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---|------|----------|-----------------|--------------|
| PI | EP 298405 | A2 | 19890111 | EP 1988-110642 | 19880704 <-- |
| | EP 298405 | A3 | 19900509 | | |
| | R: AT, BE, CH, DE, ES, FR, GB, GR, IT, LI, LU, NL, SE | | | | |
| | DE 3722827 | A1 | 19890119 | DE 1987-3722827 | 19870707 <-- |
| | FI 8803183 | A | 19890108 | FI 1988-3183 | 19880704 <-- |
| | DD 285283 | A5 | 19901212 | DD 1988-317594 | 19880705 <-- |
| | JP 01070493 | A2 | 19890315 | JP 1988-167021 | 19880706 <-- |
| | HU 47394 | A2 | 19890328 | HU 1988-3550 | 19880706 <-- |
| | US 5131946 | A | 19920721 | US 1988-215600 | 19880706 <-- |
| | SU 1779220 | A3 | 19921130 | SU 1988-4356065 | 19880706 <-- |
| | DK 8803784 | A | 19890108 | DK 1988-3784 | 19880707 <-- |
| | AU 8818809 | A1 | 19890112 | AU 1988-18809 | 19880707 <-- |
| | AU 616893 | B2 | 19911114 | | |
| | CN 1030420 | A | 19890118 | CN 1988-104218 | 19880707 <-- |
| | BR 8803400 | A | 19890124 | BR 1988-3400 | 19880707 <-- |
| | ZA 8804893 | A | 19890329 | ZA 1988-4893 | 19880707 <-- |
| PRAI | DE 1987-3722827 | | 19870707 | | |

OS MARPAT 110:212812

GI For diagram(s), see printed CA Issue.

AB The title compds. [I; R1 = H, (halo)-C1-3 alkyl; R2-R13 = H, (halo)-C1-4 alkyl, -alkoxy, -alkylthio; pairs of R2-R13 = alkylidene groups; A = (CR6R7)n; B = O; CR8R9; D = (CR10R11)n; E = CR12R13; W = S(O)m; X, Y = H, halo; Z = H, halo, trihalomethyl, amino, (substituted) carboxylate, hydroxyl, thiol; m = 0-2; n = 0, 1], useful as herbicides, were prepd. 2-Hydroxymethylpyrrolidine and 4-chloro-2-fluoro-5-mesyloxyphenyl isothiocyanate were refluxed 4 h in dioxane to give 87% 3-(4-chloro-2-fluoro-5-mesyloxyphenylimino)tetrahydro-1H,3H-pyrrolo[1,2-c]thiazole. Several I at 0.1 kg/ha preemergent gave complete kill of Solanum species, Phaseolus vulgaris, and Abutilon hybridum without toxicity to rice.

ST aryliminoazole aryliminoazine prepn herbicide; wheat soybean herbicide
arylimidazole aryliminoazine

IT Herbicides

(arylamino azoles and azines)

IT Cyclocondensation reaction

(of aryl isothiocyanates with hydroxyalkyl azoles and azines)

IT 75-26-3, 2-Bromopropane

RL: RCT (Reactant); RACT (Reactant or reagent)

(alkylation by, of hydroxyphenyliminooxazolyipyridine)

IT 120428-88-8

RL: RCT (Reactant); RACT (Reactant or reagent)

(alkylation of, in prepn. of herbicide)

IT 2740-81-0, 2-Chlorophenyl isothiocyanate

RL: RCT (Reactant); RACT (Reactant or reagent)

(condensation of, with hydroxymethylpiperidine, in prepn. of herbicide)

IT 86798-42-7, 4-Chloro-2-fluoro-5-methoxyphenyl isothiocyanate

RL: RCT (Reactant); RACT (Reactant or reagent)

(cyclocondensation of, with hydroxyethylpiperidine)

IT 622-44-6, Phenyl isocyanide dichloride

RL: RCT (Reactant); RACT (Reactant or reagent)

(cyclocondensation of, with hydroxymethylpiperidine, in prepn. of herbicide)

IT 54160-32-6

RL: RCT (Reactant); RACT (Reactant or reagent)

(cyclocondensation of, with substituted Ph isothiocyanate, in prepn. of

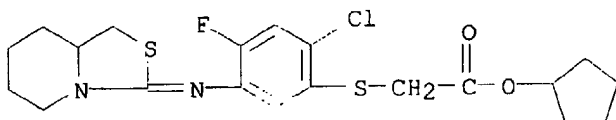
herbicide)

IT 120429-28-9P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. and cyclization of, in prepn. of herbicide)

IT 120428-83-3P 120428-84-4P 120428-85-5P 120428-86-6P 120428-87-7P
 120428-88-8P 120428-89-9P 120428-90-2P 120428-91-3P 120428-92-4P
 120428-93-5P 120428-94-6P 120428-95-7P 120428-96-8P 120428-97-9P
 120428-98-0P 120428-99-1P 120429-00-7P 120429-01-8P 120429-02-9P
 120429-03-0P 120429-04-1P 120429-05-2P 120429-06-3P 120429-07-4P
 120429-08-5P 120429-09-6P 120429-10-9P 120429-11-0P 120429-12-1P
 120429-13-2P 120429-14-3P 120429-15-4P 120429-16-5P 120429-17-6P
 120429-18-7P 120429-19-8P 120429-20-1P 120429-21-2P 120429-22-3P
 120429-23-4P 120429-24-5P 120429-25-6P 120429-26-7P 120429-27-8P
 120457-40-1P 120457-41-2P 120457-42-3P 120457-43-4P
 120457-44-5P 120478-20-8P
 RL: AGR (Agricultural use); BAC (Biological activity or
 effector, except adverse); BSU (Biological study, unclassified); SPN
 (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES
 (Uses)
 (prepn. of, as herbicide)

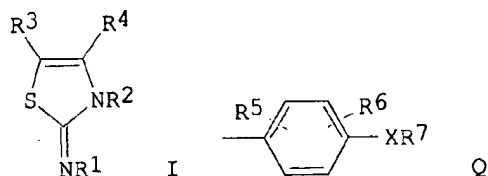
IT 120457-44-5P
 RL: AGR (Agricultural use); BAC (Biological activity or
 effector, except adverse); BSU (Biological study, unclassified); SPN
 (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES
 (Uses)
 (prepn. of, as herbicide)

RN 120457-44-5 HCAPLUS
 CN Acetic acid, [[2-chloro-4-fluoro-5-[(hexahydro-3H-thiazolo[3,4-a]pyridin-3-ylidene)amino]phenyl]thio]-, cyclopentyl ester (9CI) (CA INDEX NAME)



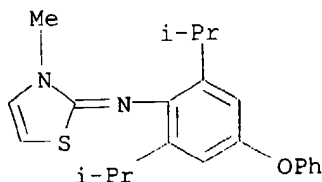
L97 ANSWER 28 OF 32 HCAPLUS COPYRIGHT 2003 ACS
 AN 1989:192810 HCAPLUS
 DN 110:192810
 TI Preparation of thiazoline derivatives as acaricides and insecticides
 IN Nagasaki, Fumihiko; Yamada, Tomio; Takahashi, Eiko; Kitagawa, Yukio;
 Hatano, Renpei
 PA Nippon Soda Co., Ltd., Japan
 SO Jpn. Kokai Tokkyo Koho, 8 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 IC ICM C07D277-42
 ICS C07D417-12
 CC 28-7 (Heterocyclic Compounds (More Than One Hetero Atom))
 Section cross-reference(s): 5
 FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|-------------------|------|----------|-----------------|--------------|
| PI | JP 63250371 | A2 | 19881018 | JP 1987-82455 | 19870403 <-- |
| | JP 07116168 | B4 | 19951213 | | |
| PRAI | JP 1987-82455 | | 19870403 | | |
| OS | MARPAT 110:192810 | | | | |
| GI | | | | | |

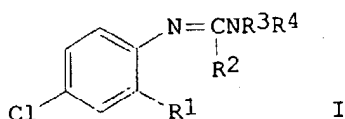


- AB Title compds. I [R1, R2 = (Ph-substituted) alkyl, cycloalkyl, Q wherein R5 = alkyl, alkylamino, R6 = H, alkyl, alkylamino, R7 = (halo- or haloalkyl-substituted) Ph or pyridyl; X = O, S; at least one of R1 and R2 = Q; R3, R4 = H, halo, (halo-substituted) alkyl or Ph] are prepd. by cyclocondensation of R1NHC(:S)NHR2 with R3CHX1CR4R8R9 (X1 = halo; R8, R9 = alkoxy or R1R2 = O). A soln. of ClCH2COMe and 2,6,4-Me2(PhO)C6H2NHC(:S)NHCMe3 in EtCOMe was refluxed to give I [R1 = Me3C; R2 = 2,6,4-Me2(PhO)C6H2; R3 = H; R4 = Me], which at 125 ppm showed 100% control of imagoes of *Tetranychus urticae*, vs. 0% for a known I [R1 = p-(p-ClC6H4O)C6H4; R2 = R4 = Me; R3 = H]. An emulsion was formulated contg. I 10, alkyl phenyl polyoxyethylene 5, DMF 50, and xylene 35 parts.
- ST thiazoline prepn acaricide insecticide
- IT Acaricides
Insecticides
(thiazoline derivs.)
- IT 80060-09-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation of, with bromoacetaldehyde acetal)
- IT 78460-18-1
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation of, with chloroacetone)
- IT 78-95-5, Chloroacetone 2032-35-1, Bromoacetaldehyde diethyl acetal
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation of, with thiourea deriv.)
- IT 120258-70-0P 120258-71-1P 120258-72-2P
120258-73-3P 120258-74-4P 120258-75-5P
120258-76-6P 120258-77-7P 120258-78-8P
120258-79-9P 120258-80-2P 120258-81-3P
120258-82-4P 120258-83-5P 120258-84-6P
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120258-91-5P 120258-92-6P 120258-93-7P
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120259-00-9P 120259-01-0P 120259-02-1P 120259-03-2P
120259-04-3P 120259-05-4P 120259-06-5P 120259-07-6P 120259-08-7P
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120259-19-0P 120292-04-8P
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of, as insecticide and acaricide)
- IT 120258-70-0P
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. of, as insecticide and acaricide)
- RN 120258-70-0 HCAPLUS

CN Benzenamine, 2,6-bis(1-methylethyl)-N-(3-methyl-2(3H)-thiazolylidene)-4-phenoxy- (9CI) (CA INDEX NAME)



L97 ANSWER 29 OF 32 HCAPLUS COPYRIGHT 2003 ACS
 AN 1987:1787 HCAPLUS
 DN 106:1787
 TI Effects of diazepam and chlordimeform analogs on the German and the American cockroaches
 AU Ozoe, Yoshihisa; Matsumura, Fumio
 CS Pestic. Res. Cent., Michigan State Univ., East Lansing, MI, 48824-1311, USA
 SO Pesticide Biochemistry and Physiology (1986), 26(3), 253-62
 CODEN: PCBPBS; ISSN: 0048-3575
 DT Journal
 LA English
 CC 5-4 (Agrochemical Bioregulators)
 Section cross-reference(s): 25, 28
 GI



AB Twenty-one diazepam- and chlordimeform (CDM) [6164-98-3]-related compds. I (R1 = Me, Bz, CF3, CN, alkenyl; R2, R3 = H, Me; R4 = Me, NO, CH2C.tplbond.CH, CH2CO2Et) were synthesized by mimicking some parts of the 1,4-benzodiazepine tranquilizers, and were tested for their insecticidal activity against the German cockroach. Some of these compds. showed knockdown effects and some were insecticidal. Against the German cockroach the most toxic CDM analog was N-propargyl CDM [105687-50-1], and that with a potent knockdown potency was I (R1 = Bz; R2-4 = Me) [49691-58-9] which has a structural resemblance to diazepam. Ligand-receptor binding assay was carried out, using [3H]diazepam as a ligand to examine the relation between CDM-related compds. and the 1,4-benzodiazepines. The [3H]diazepam binding to a specific site in the American cockroach brain was inhibited by the insecticidal compds. Among these compds. a correlation exists between their inhibitory potency of specific [3H]diazepam binding and their insecticidal activity, suggesting a possible significance of such an interaction with the diazepam-binding site for the toxicity of these compds. against cockroaches.
 ST diazepam chlordimeform insecticide cockroach
 IT Blattella germanica
 Periplaneta americana
 (chlordimeform and diazepam analogs insecticidal activity against)
 IT Nerve center and Ganglion
 (chlordimeform and diazepam analogs toxicity to, of cockroach)

IT Insecticides
(chlordimeform and diazepam analogs, against American and German cockroach)

IT 58-25-3 69954-48-9 78755-81-4
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
(insecticidal activity of, against German cockroach)

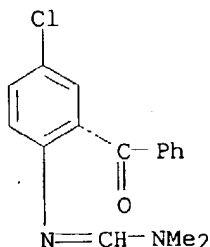
IT 6164-98-3DP, analogs 6164-98-3P 21787-80-4P 39263-33-7P
40678-73-7P 42016-57-9P 56531-97-6P 92085-19-3P
103254-17-7P 103976-13-2P 105687-51-2P 105687-52-3P
105687-53-4P 105687-54-5P 105687-55-6P 105687-56-7P 105687-57-8P
105687-58-9P 105687-59-0P 105687-60-3P
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. and insecticidal activity of, against American and German cockroach)

IT 49691-58-9P 105687-50-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

IT 40678-73-7P
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
(prepn. and insecticidal activity of, against American and German cockroach)

RN 40678-73-7 HCAPLUS

CN Methanimidamide, N'-(2-benzoyl-4-chlorophenyl)-N,N-dimethyl- (9CI) (CA INDEX NAME)



L97 ANSWER 30 OF 32 HCAPLUS COPYRIGHT 2003 ACS

AN 1986:460608 HCAPLUS

DN 105:60608

TI Phenylimino-substituted fused, bicyclic azoles

IN Hagiwara, Kenji; Ishikawa, Hisao; Hosaka, Hideo; Inaba, Hideo

PA Nippon Soda Co., Ltd., Japan

SO Ger. Offen., 105 pp.
CODEN: GWXXBX

DT Patent

LA German

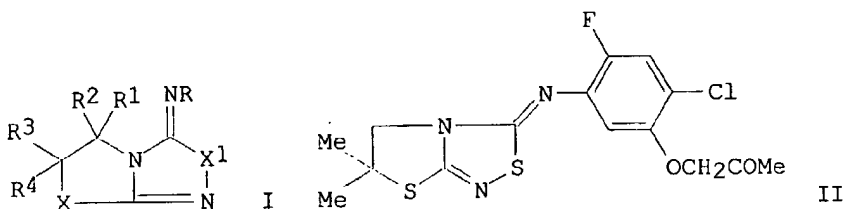
IC ICM C07D513-04
ICS C07D498-04; A01N043-90

CC 28-10 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 5

FAN.CNT 2

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------|------|-------|-----------------|-------|
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| | | | | | |
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| PI | DE 3528583 | A1 | 19860213 | DE 1985-3528583 | 19850808 <-- |
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| | JP 61043192 | A2 | 19860301 | JP 1984-164855 | 19840808 <-- |
| | JP 61161288 | A2 | 19860721 | JP 1985-1446 | 19850110 <-- |
| | US 4812161 | A | 19890314 | US 1985-760158 | 19850729 <-- |
| | CA 1253504 | A1 | 19890502 | CA 1985-488019 | 19850802 <-- |
| | RO 96413 | B3 | 19900213 | RO 1985-127334 | 19850806 <-- |
| | FR 2568881 | A1 | 19860214 | FR 1985-12111 | 19850807 <-- |
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| | BR 8503732 | A | 19860513 | BR 1985-3732 | 19850807 <-- |
| | SU 1706370 | A3 | 19920115 | SU 1985-3939370 | 19850807 <-- |
| | GB 2163427 | A1 | 19860226 | GB 1985-19896 | 19850808 <-- |
| | GB 2163427 | B2 | 19871125 | | |
| | ES 546006 | A1 | 19870216 | ES 1985-546006 | 19850808 <-- |
| | CH 666691 | A | 19880815 | CH 1985-3409 | 19850808 <-- |
| | SU 1746884 | A3 | 19920707 | SU 1986-4013917 | 19860127 <-- |
| | ES 552943 | A1 | 19871016 | ES 1986-552943 | 19860312 <-- |
| | ES 552944 | A1 | 19871016 | ES 1986-552944 | 19860312 <-- |
| PRAI | JP 1984-164855 | | 19840808 | | |
| | JP 1985-1446 | | 19850110 | | |
| OS | CASREACT 105:60608 | | | | |
| GI | | | | | |



AB The title compds. [I; R = (un)substituted Ph; R1-R4 = H, OH, R5O, R5S, R5CO₂, R5O₂C; R5 = (un)substituted hydrocarbyl; X = (CR₆R₇)_nZ; X1 = O, S(O)_n; Z = R₈N, R₆R₇C, X1; R₆-R₈ = R1; n = 0, 1; R1-R8 optionally form addnl. rings] were prepd. (.apprx.740 compds.). Thus, 1.5 g 2-amino-5,5-dimethyl-2-thiazoline and 3.0 g 2,4,5-FC1(SCN)C₆H₂OCH₂COMe were stirred at 0.degree. in CH₂Cl₂ followed by addn. of pyridine and Br and stirring 30 min to give 2.5 g thiazolothiadiazole II. I are effective herbicides against a variety of weeds at 25-50 g/10 ar with little or no damage to rice or soybeans.

ST phenyliminothiazolthiadiazole prepn herbicide; aminoazole oxidative cyclocondensation phenyl isocyanate; thiazolothiadiazole; thiazolooxadiazole; oxazolothiadiazole; pyrrolothiadiazole

IT Herbicides
(phenylimino)thiazolothiadiazoles and analogs)

IT Cyclocondensation reaction
(oxidative, of aminoazoles with Ph iso(thio)cyanates)

IT 102800-74-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation of, with (hydroxyimino)azoles and aminopyridines)

IT 22780-54-7 102800-73-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(cyclocondensation of, with Ph isocyanide dichlorides)

IT 535-11-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(esterification by, of benzoic acid deriv.)

IT 4187-87-5

RL: RCT (Reactant); RACT (Reactant or reagent)
 (esterification of, by pyrrolothiadiazolecarbonyl chloride deriv.)
 IT 21233-47-6 68210-19-5 102800-70-4 102800-72-6
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (oxidative cyclocondensation of, with Ph iso(thio)cyanates)
 IT 102800-68-0 102800-69-1 102800-71-5
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (oxidative cyclocondensation of, with aminoazoles)
 IT 102825-69-4P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. and cyclocondensation of, with (hydroxyimino)azoles and
 aminopyridines)
 IT 102800-75-9P 102800-77-1P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. and esterification of)
 IT 102800-76-0P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT
 (Reactant or reagent)
 (prepn. and O-acetylation of)
 IT 102796-81-6P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (prepn. of)
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RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

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| IT | (prepn. of, as herbicide) | | | |
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RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of, as herbicide)

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 102825-28-5P 102825-29-6P 102825-30-9P 102825-31-0P 102825-32-1P
 102825-33-2P 102825-34-3P 102825-35-4P 102825-36-5P 102825-37-6P
 102825-38-7P 102825-39-8P 102825-40-1P 102825-41-2P
 102825-42-3P 102825-43-4P 102825-44-5P 102825-45-6P
 102825-46-7P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of, as herbicide)
 IT 102825-47-8P 102825-48-9P 102825-49-0P 102825-50-3P
 102825-51-4P 102825-52-5P 102825-53-6P 102825-54-7P
 102825-55-8P 102825-56-9P 102825-57-0P
 102825-58-1P 102825-59-2P 102825-60-5P 102825-61-6P 102825-62-7P
 102825-63-8P 102825-64-9P 102825-65-0P 102825-66-1P 102825-67-2P
 102825-68-3P 102848-10-2P 102848-11-3P 102848-12-4P
 102848-13-5P 102848-14-6P 102848-15-7P 102848-16-8P
 102848-17-9P 102848-18-0P 102848-19-1P
 102848-20-4P

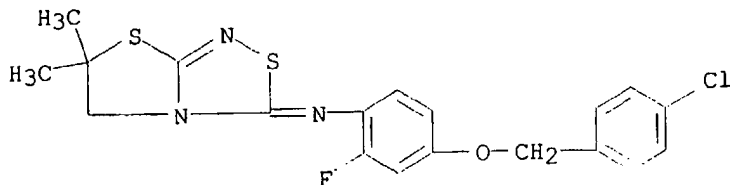
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of, as herbicide)
 IT 68-11-1, reactions
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (substitution reaction of, with diazotized aniline deriv.)

IT 79-04-9
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (O-acylation by, of propionamidoxime deriv.)

IT 102796-48-5P
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. of, as herbicide)
 RN 102796-48-5 HCAPLUS
 CN Benzenamine, 4-[(4-chlorophenyl)methoxy]-N-(5,6-dihydro-6,6-dimethyl-3H-thiazolo[2,3-c][1,2,4]thiadiazol-3-ylidene)-2-fluoro- (9CI) (CA INDEX NAME)

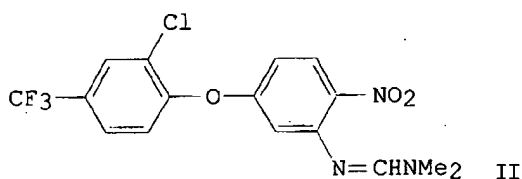
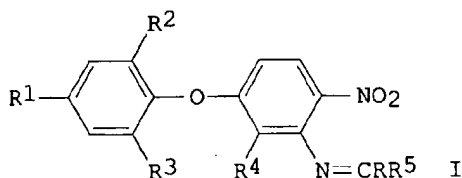


L97 ANSWER 31 OF 32 HCAPLUS COPYRIGHT 2003 ACS
 AN 1982:438658 HCAPLUS
 DN 97:38658
 TI 3-Phenoxymethylanilines as herbicides
 IN Durr, Dieter
 PA Ciba-Geigy A.-G. , Switz.
 SO Eur. Pat. Appl., 25 pp.
 CODEN: EPXXDW

DT Patent
 LA German
 IC C07C123-00; C07C119-18; C07D295-18; A01N037-52; A01N043-84; A01N043-40
 CC 25-4 (Benzene, Its Derivatives, and Condensed Benzenoid Compounds)
 Section cross-reference(s): 5

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|---------------------------|------|----------|-----------------|--------------|
| PI | EP 46445 | A1 | 19820224 | EP 1981-810319 | 19810810 <-- |
| | EP 46445 | B1 | 19840613 | | |
| | R: BE, CH, DE, FR, GB, NL | | | | |
| | US 4389236 | A | 19830621 | US 1981-289582 | 19810803 <-- |
| | CA 1197518 | A1 | 19851203 | CA 1981-383817 | 19810813 <-- |
| | JP 57054154 | A2 | 19820331 | JP 1981-128115 | 19810815 <-- |
| PRAI | CH 1980-6198 | | 19800815 | | |
| GI | | | | | |



AB I (R = C1-4 alkoxy or NR6R7; R1 = H or C1-2 haloalkyl; R2-4 = H or halo; R5 = H or C1-4 alkyl; R6 = H or C1-4 alkyl, alkenyl, alkynyl; R7 = H or C1-4 alkyl) were prepd. and shown to have herbicidal activity. Thus, 2,4-C1(F3C)C6H3OC6H3(NO2)2-3,4 was ammonolyzed in an autoclave to give 2,4-C1(F3C)C6H3OC6H3(NH2)(NO2)-3,4, which with MeC(OEt)2NMe2 gave II.

ST aryloxy nitro anil herbicide
 IT Herbicides
 (methylenenitrophenoxylanilines)

IT 71980-08-0
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (aminolysis of)

IT 81700-96-1P 81700-97-2P 81700-98-3P
 81700-99-4P 81701-00-0P 81701-01-1P
 RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)
 (prepn. and herbicidal activity of)

IT 42874-46-4P
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
 (prepn. and reaction with DMF di-Et acetal)

IT 1188-33-6
 RL: RCT (Reactant); RACT (Reactant or reagent)
 (reaction of, with aniline deriv.)

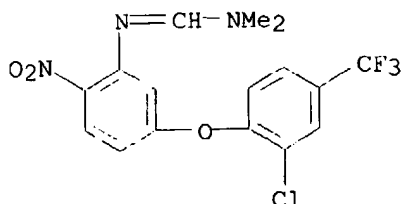
IT 81700-96-1P
 RL: AGR (Agricultural use); BAC (Biological activity or

effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(prepn. and herbicidal activity of)

RN 81700-96-1 HCAPLUS

CN Methanimidamide, N'-[5-[2-chloro-4-(trifluoromethyl)phenoxy]-2-nitrophenyl]-N,N-dimethyl- (9CI) (CA INDEX NAME)



L97 ANSWER 32 OF 32 HCAPLUS COPYRIGHT 2003 ACS

AN 1978:121227 HCAPLUS

DN 88:121227

TI Triazapentadienes useful as miticides

IN Leeming, Michael Raymond Graves; Penrose, Alexander Ballingall

PA Pfizer Corp., Panama

SO Ger. Offen., 87 pp.

CODEN: GWXXBX

DT Patent

LA German

IC C07D213-74

CC 28-17 (Heterocyclic Compounds (More Than One Hetero Atom))

Section cross-reference(s): 5, 25, 27

FAN.CNT 1

| | PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------|----------------|------|----------|-----------------|--------------|
| PI | DE 2717280 | A1 | 19771110 | DE 1977-2717280 | 19770419 <-- |
| | DE 2717280 | B2 | 19801106 | | |
| | DE 2717280 | C3 | 19810702 | | |
| | ZA 7701561 | A | 19780125 | ZA 1977-1561 | 19770315 <-- |
| | US 4128652 | A | 19781205 | US 1977-787084 | 19770413 <-- |
| | BE 853713 | A1 | 19771018 | BE 1977-176816 | 19770418 <-- |
| | FI 7701222 | A | 19771021 | FI 1977-1222 | 19770418 <-- |
| | NL 7704190 | A | 19771024 | NL 1977-4190 | 19770418 <-- |
| | NL 170732 | B | 19820716 | | |
| | NL 170732 | C | 19821216 | | |
| | ES 457914 | A1 | 19780716 | ES 1977-457914 | 19770418 <-- |
| | DK 7701721 | A | 19771021 | DK 1977-1721 | 19770419 <-- |
| | FR 2348920 | A1 | 19771118 | FR 1977-11725 | 19770419 <-- |
| | FR 2348920 | B1 | 19800208 | | |
| | BR 7702457 | A | 19780502 | BR 1977-2457 | 19770419 <-- |
| | GB 1510073 | A | 19780510 | GB 1976-15812 | 19770419 <-- |
| | CH 604512 | A | 19780915 | CH 1977-4824 | 19770419 <-- |
| | JP 52128375 | A2 | 19771027 | JP 1977-45617 | 19770420 <-- |
| | JP 54001709 | B4 | 19790127 | | |
| | US 4186264 | A | 19800129 | US 1978-943665 | 19780918 <-- |
| PRAI | GB 1976-15812 | | 19760420 | | |
| | GB 1976-34319 | | 19760818 | | |
| | US 1977-787084 | | 19770413 | | |

AB Seventy-five 2,4-MeRC6H3N:CHNMeCR1:NR2 (I; R = Cl or Me; R1 = a carbon-attached arom. N heterocycle, e.g., 3-pyridyl, 2-thiazolyl; R2 = H, Me, or Et) were prepd. by the addn. reaction of 2,4-MeRC6H3NC with R1N:CR2NHMe, and 16 I (R = Me, R1 = a carbon-attached arom. N heterocycle,

R2 = H) were prepd. by the condensation of 2,4-Me2C6H3N:CHNHMe with R1N:CHOEt. Of the 91 I thus prepd., 74 were evaluated as miticides and most of those tested showed excellent activity. The prepn. of many of the R1N:CR2NHMe and R1N:CHOEt was described also.

ST triazapentadiene aryl heterocyclyl miticide prepn; nitrogen heterocycle aryltriazapentadienyl miticide prepn; acaricide aryltriazapentadienyl heterocycle

IT Acaricides
(aryltriazapentadienyl arom. nitrogen heterocycles)

IT 3100-93-4 60515-59-5
RL: RCT (Reactant); RACT (Reactant or reagent)
(addn. reaction of, with amidines)

IT 74-89-5, reactions
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with Et formimidates)

IT 78-39-7 115-80-0 123-39-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with amino-substituted nitrogen heterocycles)

IT 109-12-6 533-30-2 578-66-5 580-15-4 695-34-1 823-39-2 823-61-0
1072-97-5 1532-84-9 1603-40-3 1603-41-4 1603-91-4 1824-81-3
2010-06-2 2289-75-0 3512-80-9 4214-74-8 5049-61-6 5339-33-3
5398-36-7 7252-84-8 15583-16-1 30709-67-2 41995-30-6 42753-67-3
42770-14-9 65258-53-9
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with tri-Et orthoacetate)

IT 96-50-4 136-95-8 504-24-5 504-29-0 1072-98-6 6298-37-9
41995-31-7 62476-56-6 65258-52-8
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with tri-Et orthoformate)

IT 462-08-8 3430-33-9 6298-19-7 28020-37-3 65259-40-7
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with N-methylformamide)

IT 7727-37-9D, amine-substituted heterocyclic compds.
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with N-methylformamide and with ortho esters)

IT 33842-45-4
RL: RCT (Reactant); RACT (Reactant or reagent)
(condensation of, with N'-aryl-N-methylformamidine)

IT 65258-54-0P 65258-55-1P 65258-56-2P 65258-57-3P 65258-58-4P
65258-59-5P 65258-60-8P 65258-61-9P 65258-62-0P 65258-63-1P
65258-64-2P 65258-65-3P 65258-66-4P 65258-67-5P 65258-68-6P
65258-69-7P 65258-70-0P 65258-72-2P 65258-73-3P
65258-74-4P 65258-75-5P 65258-76-6P 65258-77-7P 65258-78-8P
65258-79-9P 65258-80-2P 65258-81-3P 65258-82-4P 65258-83-5P
65258-84-6P 65258-85-7P 65258-86-8P 65258-87-9P 65258-88-0P
65258-89-1P 65258-90-4P 65258-91-5P 65258-92-6P 65258-93-7P
65258-94-8P 65258-95-9P 65258-96-0P 65258-97-1P 65258-98-2P
65259-00-9P 65259-01-0P 65259-02-1P 65259-04-3P 65259-05-4P
65259-06-5P 65259-07-6P 65259-08-7P 65259-09-8P 65259-10-1P
65259-12-3P 65259-13-4P 65259-15-6P 65259-16-7P
65259-17-8P 65259-18-9P 65259-19-0P 65259-20-3P 65259-21-4P
65259-22-5P 65259-23-6P 65259-24-7P 65259-27-0P 65259-28-1P
65259-29-2P 65259-30-5P 65259-33-8P 65352-70-7P 65531-27-3P
RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation); USES (Uses)
(manuf. and acaricidal activity of)

IT 16705-92-3P 33842-49-8P 33842-54-5P 41154-10-3P 50501-92-3P
65257-80-9P 65257-81-0P 65257-82-1P 65257-83-2P
RL: PREP (Preparation)
(manuf. and condensation with N'-aryl-N-methylformamidine)

IT 65258-54-0P 65258-55-1P 65258-71-1P 65258-99-3P 65259-03-2P

65259-11-2P 65259-14-5P 65259-25-8P 65259-26-9P
 65259-31-6P 65259-32-7P 65259-34-9P 65259-35-0P 65259-36-1P
 65259-37-2P 65259-38-3P 65259-39-4P

RL: PREP (Preparation)

(manuf. of, for use as acaricide)

IT 40319-86-6P 40320-36-3P 65258-18-6P 65258-19-7P 65258-20-0P
 65258-21-1P 65258-22-2P 65258-23-3P 65258-24-4P 65258-25-5P
 65258-26-6P 65258-27-7P 65258-28-8P 65258-29-9P 65258-30-2P
 65258-31-3P 65258-32-4P 65258-33-5P 65258-34-6P 65258-35-7P
 65258-36-8P 65258-37-9P 65258-38-0P 65258-39-1P 65258-40-4P
 65258-41-5P 65258-42-6P 65258-43-7P 65258-44-8P 65258-45-9P
 65258-46-0P 65258-47-1P 65258-48-2P 65258-49-3P 65258-50-6P
 65258-51-7P 65352-71-8P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and addn. reaction with aryl isocyanide)

IT 40320-08-9P

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. and condensation with aryl isocyanide)

IT 3189-28-4P 26829-67-4P 33842-51-2P 33842-52-3P 33842-53-4P
 35257-15-9P 41154-05-6P 50501-89-8P 50501-90-1P 65257-84-3P
 65257-85-4P 65257-86-5P 65257-87-6P 65257-88-7P 65257-89-8P
 65257-90-1P 65257-91-2P 65257-92-3P 65257-93-4P 65257-94-5P
 65257-95-6P 65257-96-7P 65257-97-8P 65257-98-9P 65257-99-0P
 65258-00-6P 65258-01-7P 65258-02-8P 65258-03-9P 65258-04-0P
 65258-05-1P 65258-06-2P 65258-07-3P 65258-08-4P 65258-09-5P
 65258-10-8P 65258-11-9P 65258-12-0P 65258-13-1P 65258-14-2P
 65258-15-3P 65258-16-4P 65258-17-5P

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. and condensation with N'-aryl-N-methylformimidine)

IT 40320-08-9P 65259-41-8P 65259-42-9P 65259-43-0P 65259-44-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(prepn. and reaction with aryl isocyanide)

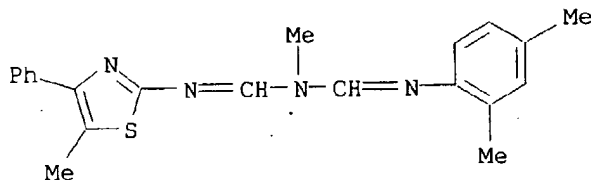
IT 65258-73-3P

RL: AGR (Agricultural use); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); IMF (Industrial manufacture); BIOL (Biological study); PREP (Preparation); USES (Uses)

(manuf. and acaricidal activity of)

RN 65258-73-3 HCAPLUS

CN Methanimidamide, N-[(2,4-dimethylphenyl)imino]methyl]-N-methyl-N'-(5-methyl-4-phenyl-2-thiazolyl)- (9CI) (CA INDEX NAME)



=> d his

(FILE 'HOME' ENTERED AT 14:45:24 ON 13 MAR 2003)
 SET COST OFF

FILE 'HCAPLUS' ENTERED AT 14:45:35 ON 13 MAR 2003
 E GB99-2592/AP, PRN

L1 1 S E4
 E WO2000-GB345/AP, PRN
 L2 1 S E3, E4
 E WO200046184/PN
 L3 1 S E3
 L4 1 S L1-L3
 E CHARLES, M
 E CHARLES M/AU
 L5 59 S E3, E9, E29
 E FRANKE W/AU
 L6 264 S E3-E11, E25, E26
 E GREEN D/AU
 L7 349 S E3, E8-E10
 E GREEN DAVE/AU
 L8 254 S E4, E16-E19
 E HOUGH T/AU
 L9 23 S E3, E4, E11, E13, E14
 E MITCHELL D/AU
 L10 182 S E3, E19-E21
 L11 7 S E30-E32
 E SIMPSON D/AU
 L12 124 S E3, E14
 E SIMPSON DON/AU
 L13 13 S E4, E8, E9
 E ATHERALL J/AU
 L14 3 S E4, E5
 E AVEBTUS.OAMCS
 E AVENTIS/PA, CS
 L15 1597 S AVENTIS?/PA, CS
 L16 1 S L4 AND L5-L15
 SEL RN

FILE 'REGISTRY' ENTERED AT 14:50:24 ON 13 MAR 2003

L17 448 S E1-E448
 L18 106 S L17 NOT METHANIMIDAMIDE
 L19 STR
 L20 SCR 1839
 L21 50 S L19 AND L20
 L22 30727 S L19 AND L20 FUL
 SAV TEMP L22 QAZI890/A
 L23 STR L19
 L24 383 S L17 AND L22
 L25 65 S L17 NOT L24
 L26 48 S L25 AND NR>=2
 L27 23 S L26 NOT METHANIMIDAMIDE
 L28 3 S L27 AND (C22H30N2O OR C21H28N2O OR C20H22N4OS)
 L29 25 S L26 NOT L27
 L30 411 S L24, L28, L29
 L31 37 S L17 NOT L30
 SAV TEMP L30 QAZI890A/A

FILE 'HCAPLUS' ENTERED AT 15:12:16 ON 13 MAR 2003

L32 1 S L30

FILE 'USPATFULL, USPAT2' ENTERED AT 15:12:35 ON 13 MAR 2003

L33 0 S L30

FILE 'REGISTRY' ENTERED AT 15:12:44 ON 13 MAR 2003

L34 30344 S L22 NOT L17
 L35 STR L23
 L36 50 S L35 SAM SUB=L34

FILE 'HCAPLUS' ENTERED AT 15:16:35 ON 13 MAR 2003

L37 2642 S L34
 L38 2419 S L37 AND (PD<=20000204 OR PRD<=20000204 OR AD<=20000204)
 L39 374 S L37 (L) AGR/RL AND L38
 L40 1076 S L37 AND AGRO?/SC,SX AND L38
 E FUNGICIDE/CT
 L41 194 S E17 AND L38
 E E5+ALL
 L42 130 S E8+NT AND L38
 L43 3749 S (ERYSIPH? OR "E") ()GRAMIN? OR TRITICI?
 E ERYSIPHE/CT
 L44 1059 S E25-E32
 E E25+ALL
 L45 1059 S E6+NT
 E E4+ALL
 L46 2689 S E4+NT
 L47 23 S L38 AND L43-L46
 L48 23 S L39,L40 AND L47
 L49 23 S L40 AND L47
 L50 23 S L48,L49
 L51 13 S L50 NOT MIX?
 L52 10 S L50 NOT L51
 L53 5 S L52 NOT SYNERG?
 L54 13 S L51 NOT SYNERG?
 L55 18 S L53,L54
 L56 868 S L38 AND P/DT
 L57 502 S L56 AND L39-L46
 L58 278 S L57 NOT (SYNERG? OR MIX?)
 L59 272 S L58 NOT GENET?/SC,SX
 L60 140 S L59 AND (US/PC OR US/PRC OR US/AC)
 L61 130 S L60 AND US/PC
 L62 25 S L60 AND L41,L42
 L63 23 S L62 AND 5/SC,SX
 L64 41 S L55,L63 AND L37-L63
 L65 28 S L64 AND P/DT
 L66 13 S L64 NOT L65
 L67 40 S BENZEN?/SC,SX AND L56
 L68 15 S L67 AND L39-L46
 L69 1076 S L38 AND 5/SC,SX
 L70 205 S L39,L40,L69 AND L41-L46
 L71 131 S L70 NOT (SYNERG? OR MIX?)
 L72 131 S L71 NOT GENET?/SC,SX
 L73 49 S L72 AND P/DT
 SEL HIT RN

FILE 'REGISTRY' ENTERED AT 15:30:19 ON 13 MAR 2003

L74 723 S E1-E723
 L75 4278 S L35 FUL SUB=L34
 SAV L75 QAZI890B/A
 L76 0 S L74 AND L75

FILE 'HCAPLUS' ENTERED AT 15:33:37 ON 13 MAR 2003

L77 200 S L75
 L78 169 S L77 AND (PD<=20000204 OR AD<=20000204 OR AD<=20000204)
 L79 50 S L78 AND AGRO?/SC,SX
 L80 43 S L75 (L) AGR/RL
 L81 41 S L78 AND L80
 L82 0 S L78 AND L43-L46
 L83 1 S L78 AND ?FUNG?
 L84 43 S L80,L81
 L85 42 S L84 NOT (PHARMACOL? OR PHARMACEUT?)/SC,SX
 SEL HIT RN
 DEL SEL
 SEL HIT RN

L86 FILE 'REGISTRY' ENTERED AT 15:36:12 ON 13 MAR 2003
605 S E1-E605

FILE 'REGISTRY' ENTERED AT 15:38:13 ON 13 MAR 2003

L87 FILE 'HCAPLUS' ENTERED AT 15:38:22 ON 13 MAR 2003
1 S L32 AND L1-L16

FILE 'REGISTRY' ENTERED AT 15:38:58 ON 13 MAR 2003

FILE 'HCAPLUS' ENTERED AT 15:39:33 ON 13 MAR 2003

L88 2 S L77 AND L1-L16

L89 15 S L37 AND L1-L16

L90 15 S L88,L89

L91 10 S L90 NOT MIX?

L92 10 S L88,L91

L93 7 S L92 AND (AGR?/SC,SX OR L41-L46)

L94 3 S L92 NOT L93

L95 10 S L93,L94

L96 10 S L95 AND L38

L97 32 S L85 NOT (SYNERG? OR MIX?)